C 740
STEREO
RECEIVER

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SERVICE MANUAL

NAD

SERVICE SAFETY PRECAUTIONS

1. **Replacing the fuses**
   CAUTION: FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE
   REPLACE ONLY WITH SAME TYPE OF FUSE.

Reference No.	Part No.	Description
F901*AH	252161	3A-125V UL/T-237 Time lag
F901*B1, B, C	252074	T2A L/250V SE-EAK Time lag

NOTE:
<*AH> : U. S. A., CANADIAN MODEL ONLY. <*B1> : AUSTRALIAN MODEL ONLY.
<*C> : EUROPEAN MODEL ONLY. <*B> : U.K. MODEL ONLY.

2. SAFETY CHECK OUT
   (Only U.S.A. model)
   Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit.

Parts marked with the symbol ⚠ are critical with regard to the risk of fire and electric shock. Replace only with parts recommended by the manufacturer.

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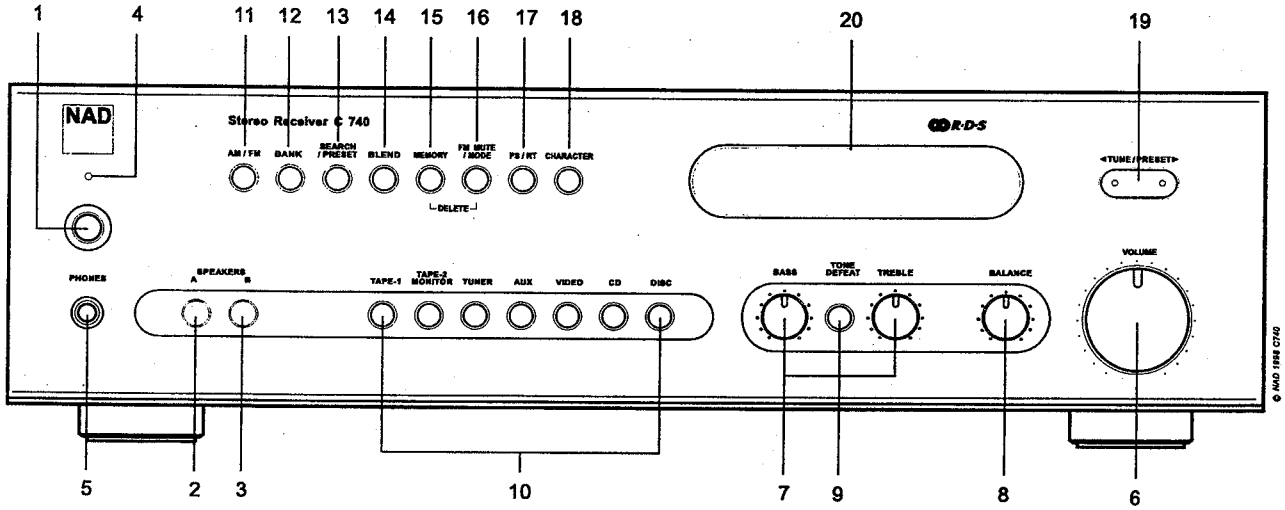
WARNING:TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

FRONT PANEL CONTROLS

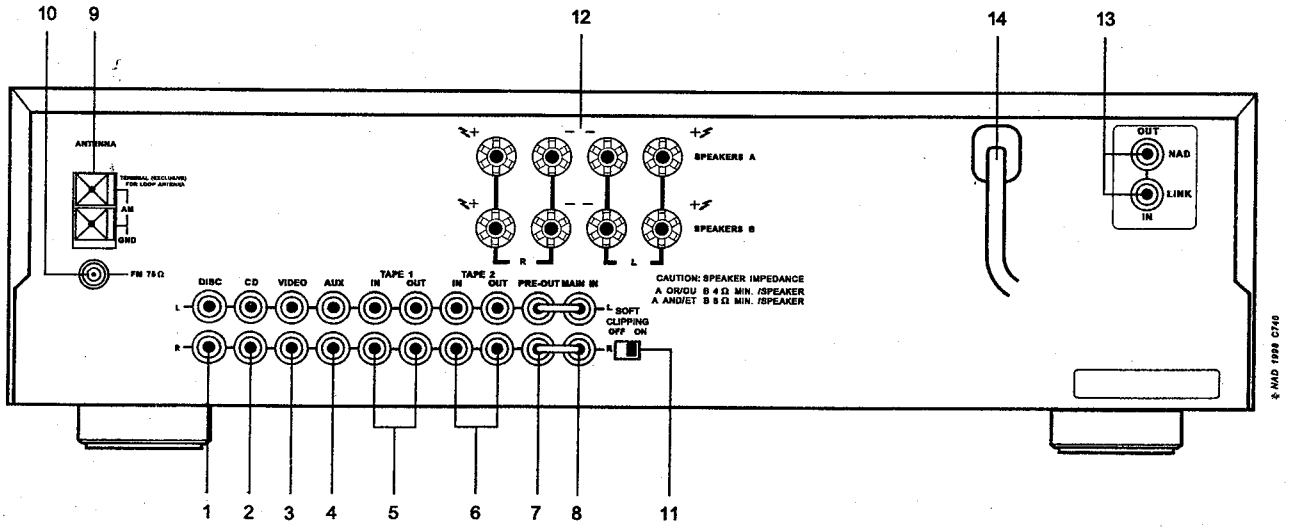


1. POWER ON/OFF
2. SPEAKERS A
3. SPEAKERS B
4. STANDBY INDICATOR
5. HEADPHONE SOCKET
6. VOLUME
7. BASS & TREBLE CONTROLS
8. BALANCE
9. TONE DEFEAT
10. INPUT SELECTORS
11. AM/FM
12. BANK
13. SEARCH/PRESET
14. BLEND
15. MEMORY
16. FM MUTE/MODE
17. PS/RT (RDS Version) or DISPLAY (non-RDS version)
18. CHARACTER
19. TUNE/PRESET
20. DISPLAY PANEL

The lightning flash with arrowhead, within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

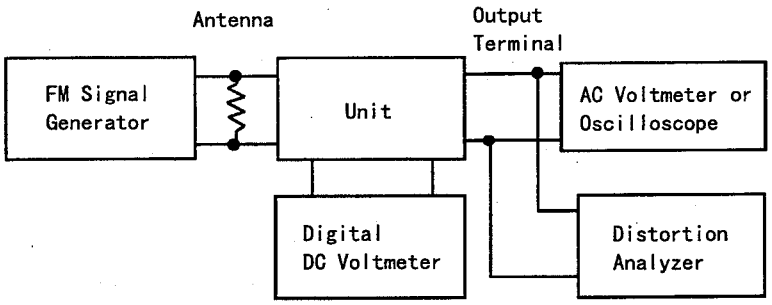
REAR PANEL CONNECTIONS



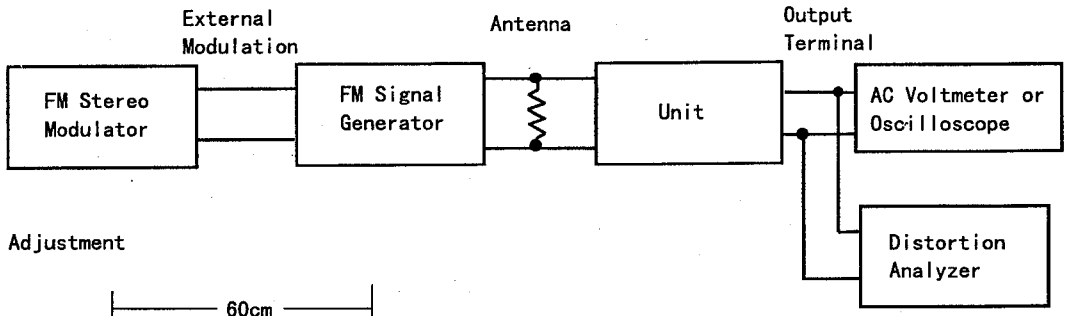
1. DISC INPUT
2. CD INPUT
3. VIDEO INPUT
4. AUX INPUT
5. TAPE 1 IN/OUT
6. TAPE 2 IN/OUT
7. PRE OUT
8. MAIN IN
9. AM ANTENNA
10. FM ANTENNA (F-type terminal for AH, DIN for B, B1, C)
11. SOFT CLIPPING
12. SPEAKERS A + B
13. NAD LINK IN, OUT
14. AC LINE CORD

CONNECTION OF INSTRUMENT

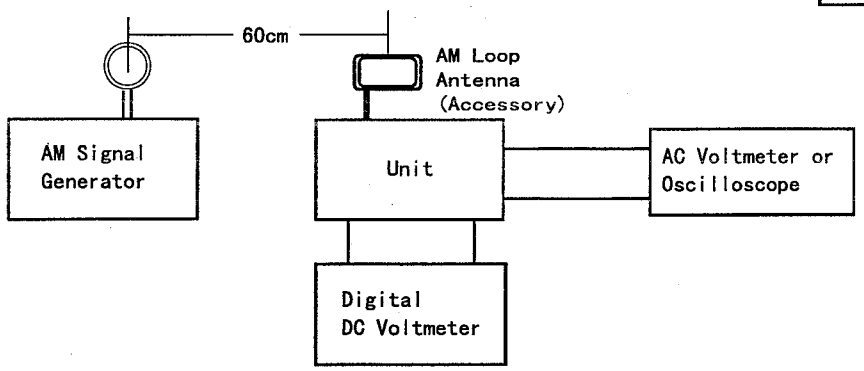
FM Adjustment



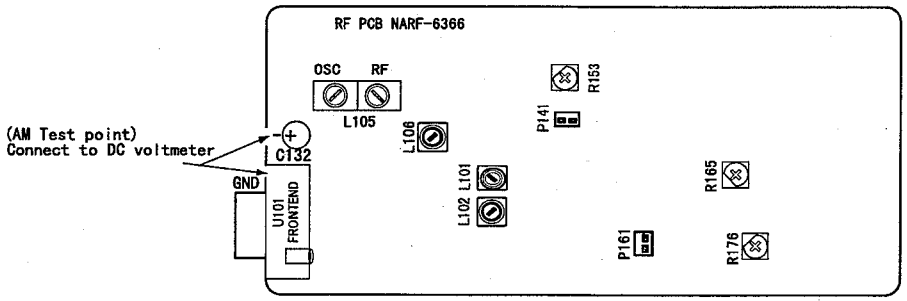
FM Stereo Adjustment

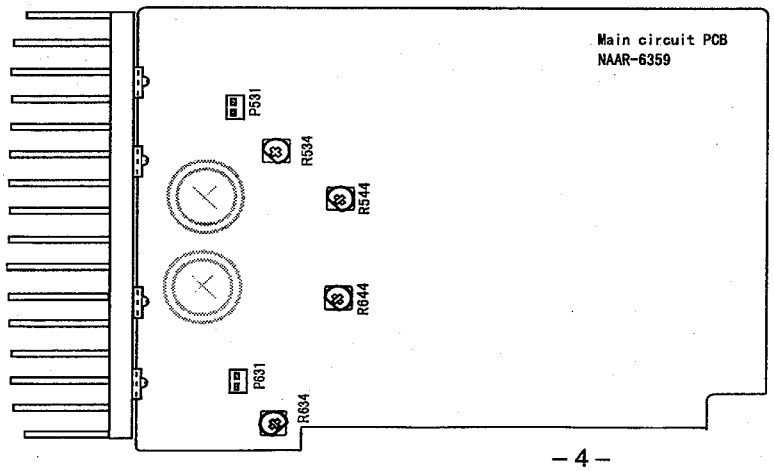


AM Adjustment



Adjustment Point





ALIGNMENT PROCEDURE

1. FM Adjustment
   a. Set the unit's frequency to 99.0MHz.
   b. Connect a dc volt meter with P141.
   c. Set FM MUTE/MODE SW (S717) to stereo.
   d. Set SSG(Standard Signal Generator) frequency to 99.0MHz, output to 60dB μ V and connect to 75 ohm antenna terminal.
   e. Turn the core of L101(NFIF-4087) so that the voltage can be within ±20mV.
   f. Turn the core of L102(NFIF-4088) so that mono distortion goes minimum.
   g. Repeat above items(e & f) a few times.
   h. Connect a Frequency counter with P161.
   i. Turn R176 so that the frequency can be within 19kHz±10Hz.
   j. Set the output of SSG to stereo.
   k. Turn IFT in the frontend(U101) within ±180 degrees so that stereo distortion can be minimum.
   l. Adjust R165 and get maximum stereo separation.
   m. Set SSG output to 17dBuV.
   n. Adjust R153 so that STEREO indicator turns ON. As a optional method, judging by wave form is admitted.
   o. Repeat above items(m and n) a few times.

2. AM Adjustment

<AH> model

Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment Point	Adjust for
1		530kHz	Digital DC voltmeter	OSC coil on RF Block L105	1.3V±0.2V
2	600kHz 400Hz 30% mod. 60dB/ m	600kHz	AC voltmeter	RF coil on RF Block L105	Maximum
3	990kHz 400Hz 30% mod. 60dB/ m	990kHz	AC voltmeter	L106	Maximum

Reference Specification
FM tuned voltage 87.50MHz~108.00MHz
More than 1.2V~Less than 10V
AM tuned voltage 530kHz~1710kHz
1.3V~Less than 9.0V

<C, B, B1> models

Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment Point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF Block L105	1.3V±0.2V
2	603kHz 400Hz 30% mod. 60dB/ m	603kHz	AC voltmeter	RF coil on RF Block L105	Maximum
3	999kHz 400Hz 30% mod. 60dB/ m	999kHz	AC voltmeter	L106	Maximum

Reference Specification
FM tuned voltage 87.50MHz~108.00MHz
More than 1.2V~Less than 10V
AM tuned voltage 522kHz~1611kHz
1.3V~Less than 9.0V

3. POWER AMP ADJUSTMENT

Idle Current
a. By adjusting R534 and R634, set the voltage between test points P531 and P631 to 6.0mV±1.0mV immediately after the power is switched on.
b. After 4 ~ 6 minutes with the power on, readjust R534 and R634 to 5.0mV±1.0mV.

Offset Voltage
a. After 4 ~ 6minutes with the power on, adjust R544 and R644 to 0mV±20mV.

SPECIFICATIONS

Test conditions

① Power Supply Voltage & Frequency
AH Type 120V / 60Hz
C,B,B1 Type 230V / 50Hz

② Load Resistance
Speaker Terminal 8 ohms /4 ohms
Other Terminal 47kohms

③ Temperature & Humidity
Temperature 5 ~ 35 °C
Humidity 45 ~ 85 % RH

④ Standard Knob and Switch Position (S.K.P.)

a. Master Volume Control	Maximum	f. Tape Monitor	OFF
b. Bass Control	Center	g. Muting	OFF
c. Treble Control	Center	h. Speaker	A ON ,B OFF
d. Balance Control	Center	i. Soft Clipping	OFF
e. Input Selector	CD	j. Tone Defeat	OFF

Available Remote Control Unit : RC−450S

⑤ Modulation
FM Mono 75.0kHz Deviation (Mod.=1kHz)
Stereo L + R = 67.5kHz Deviation (Mod.=1kHz)
Pilot = 7.5kHz Deviation (19kHz)
RDS = 1.0kHz Deviation (57kHz)
AM 400Hz, 30%

⑥ Reduce the following value from signal generator
FM 75 ohms 0dB
300 ohms −12dB
AM Loop Antenna −26dB

「AUDIO SECTION」

Max. Power Both Channel Driven 8Ω Load	1kHz/20kHz/20Hz	L,R-ch (Sel.:CD) Only Variable	35 W min.	L/R
Both Channel Driver 4Ω Load	1kHz/20kHz/20Hz	L,R-ch (Sel.:CD) Only Variable	35 W min.	L/R
Line Separation	100Hz	− 17dBV	55.0 dB min.	L/R The Reverse Channel
	10kHz	− 17dBV	35.0 dB min.	L/R Terminated with 5.1kohm
Hum & Noise	CD	No Signal S.K.P.	−55.0 dBV	L/R Terminated With 5.1kohm
		Volume:Min.	−60.0 dBV	L/R Terminated With 5.1kohm
Bass Min.	100Hz	−10dBV' Vol:Mech.Center Bass / Min.	− 6.0 ± 1.5 dB	
Bass Max.	100Hz	−10dBV' Vol:Mech.Center Bass/Max	+ 6.0 ± 1.5 dB	
Treble Min	10kHz	−10dBV Treble/Min.	− 7.5 ± 1.5 dB	
Treble Max.	10kHz	−10dBV' Vol:Mech.Center Treble/Max.	+ 7.5 ± 1.5 dB	

「AM SECTION」

Tuning Range	Fmin. AH / C, B, B1	530 / 522 kHz	Freq. Step: AH/C, B, B1 = 10/9 kHz
	Fmax. AH / C, B, B1	1710 / 1611 kHz	Changing the AM band step
Maximum Sensitivity	603, 990, 1404 kHz (600, 990, 1400)	60dB/m max.	Input=60dB/m
Usable Sensitivity	603, 990, 1404 kHz (600, 990, 1400)	15dB min. 40dB min.	
Image Rejection Ratio	1404/1400kHz	28dB min.	
IF Rejection Ratio	600/603kHz	24dB min.	
Selectivity	990±9kHz	24dB min.	
Fixed Output Level	990kHz	100mV min.	Input=100dB/m

	to 10kHz step	to 9kHz step
R737	10k ohm	5.6k ohm

「FM SECTION」

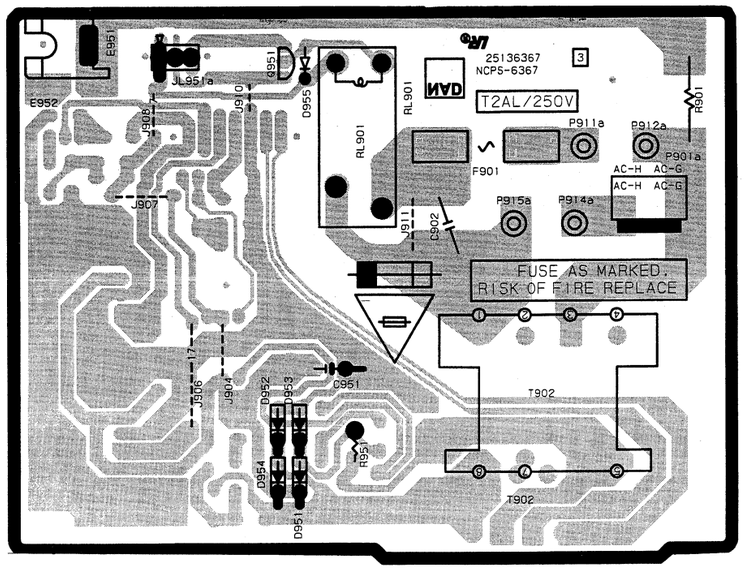
Tuning Range	Fmin.		87.5 MHz	Freq. Step(Manual:25KHz)
	Fmax.		108.0 MHz	Auto:AH/C, B, B1=100/50KHz
Usable Sensitivity	87.5,98,108 MHz		30dB min.	Input=12dBμ
3dB Limited Sensitivit	98MHz		6dBμ max.	
Image Rejection Ratio	108MHz		35/75dB min.	(AH/ C, B, B1)
IF Rejection Ratio	90MHz		70dB min.	
Selectivity	98MHz		40/65dB min.	(AH/ C,B,B1)
Signal to Noise Ratio	98MHz		64dB min.	Input=60dBμV
Fixed Output Level	98MHz	AH	550±200mV	Input=60dBμ
		C,B	750±250mV	

「FM STEREO」

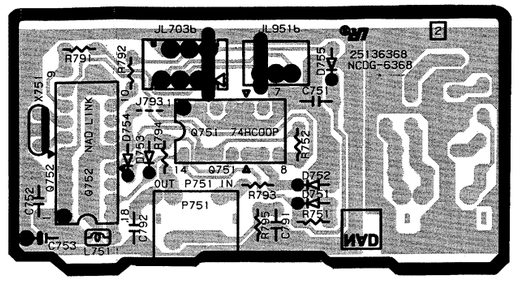
Blend	98MHz	(L/R Separation at Blend ON)	13±3dB	Input=60dBμ mod.=1kHz
Muting	98MHz	Width	35±10kHz	Adjust L102
		Depth	35 dBu max.	Audition Input=60dBμ 1KHz deviation

PCB LAYOUT

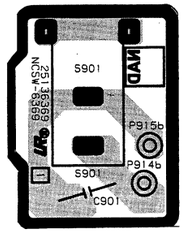
U09 : NAPS-6367 Power supply PC board



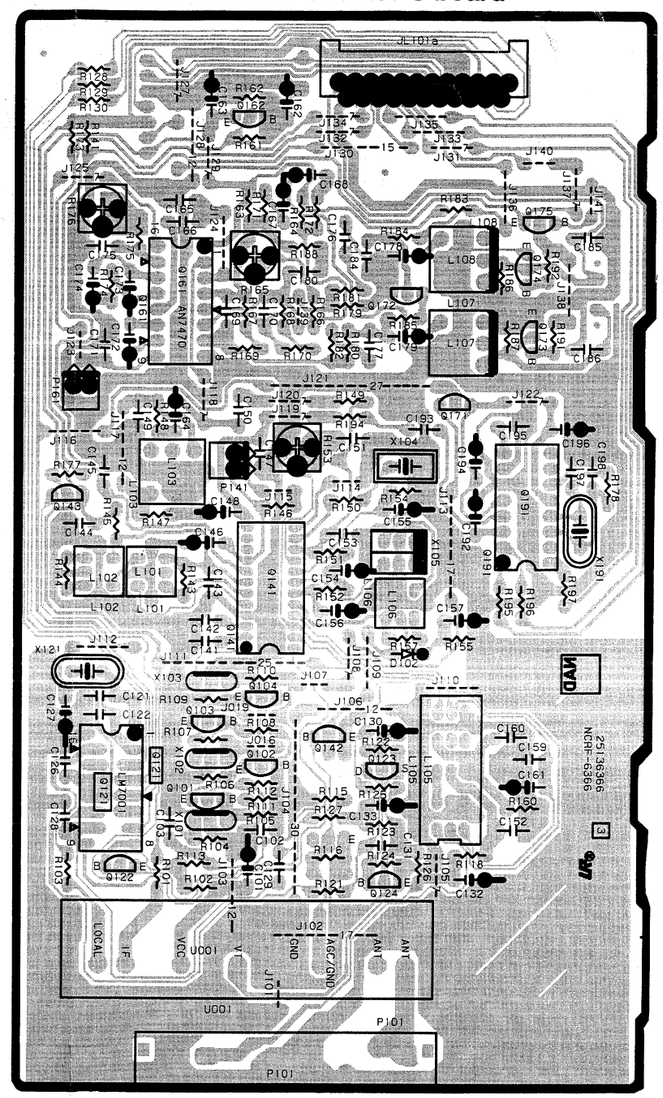
U10 : NADG-6368
NAD link PC board



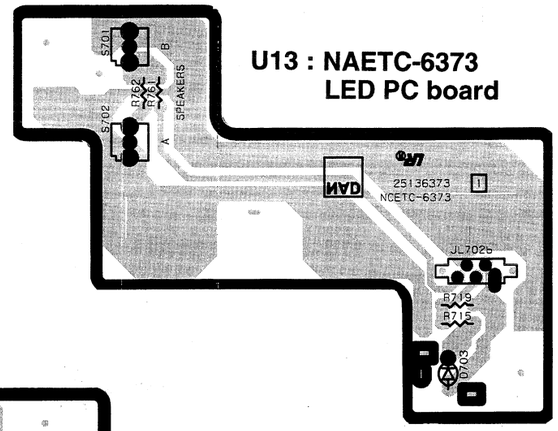
U11 : NASW-6369
Power switch PC board



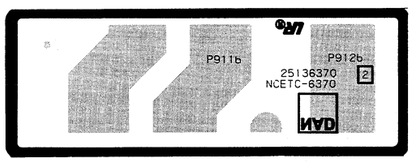
U08 : NARF-6366 RF circuit PC board



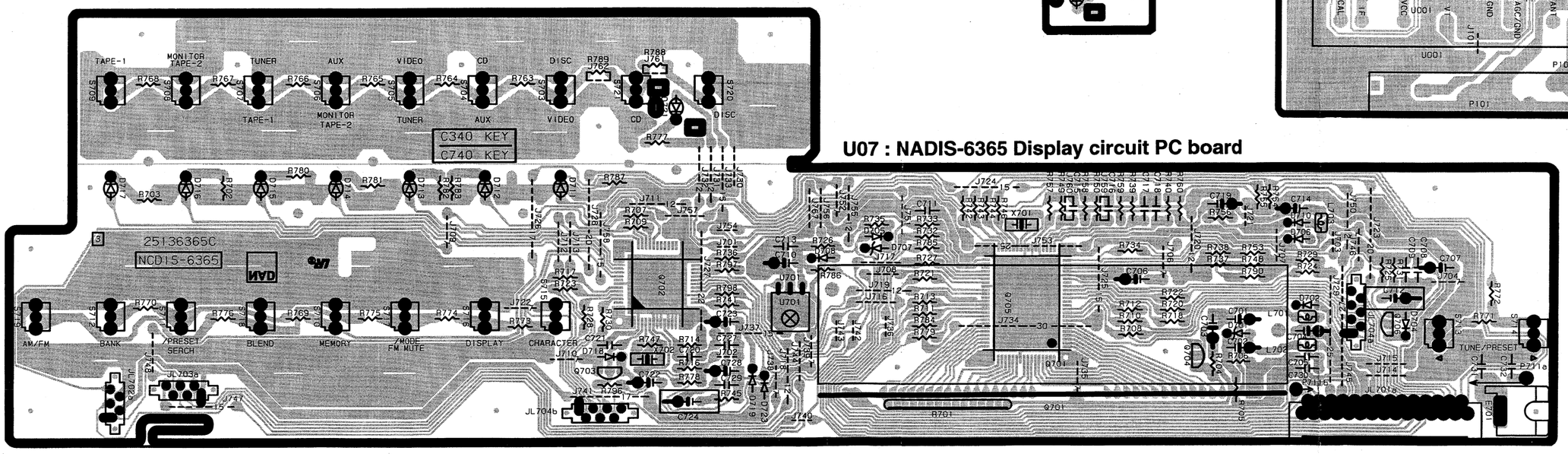
U13 : NAETC-6373
LED PC board



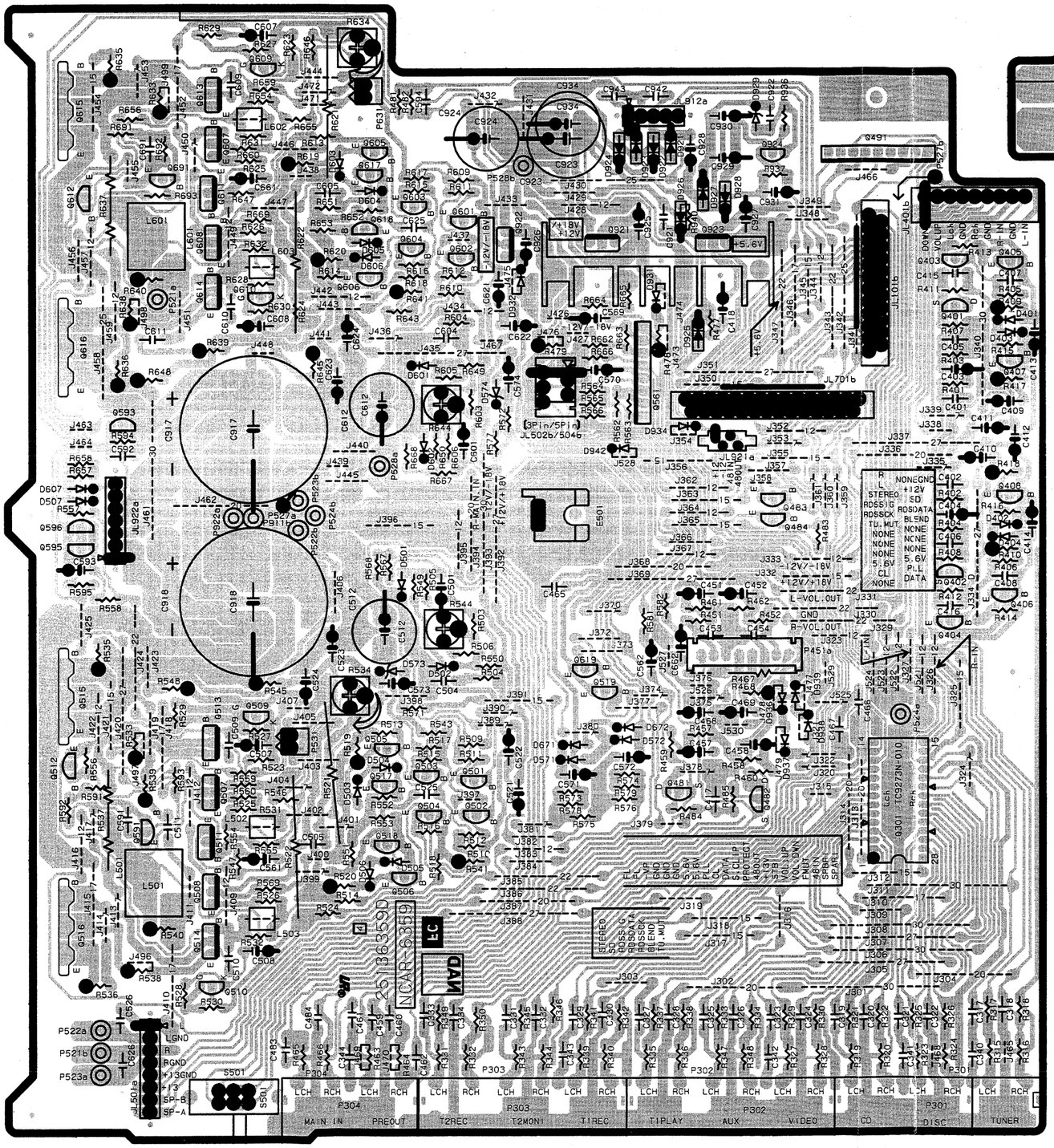
U12 : NAETC-6370
Other PC board



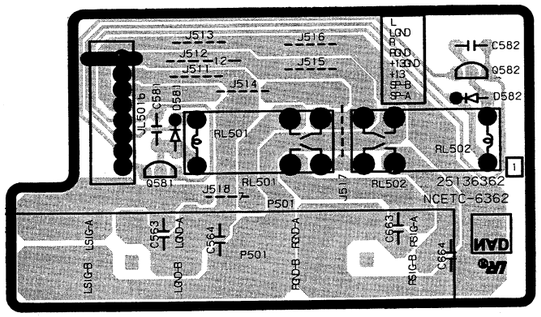
U07 : NADIS-6365 Display circuit PC board



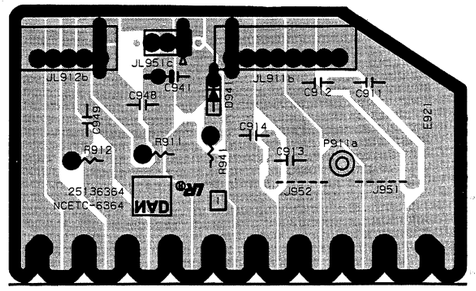
U01 : NAAR-6539 Main circuit PC board



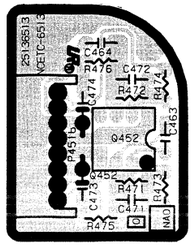
U04 : NAETC-6362 Speaker terminal PC board



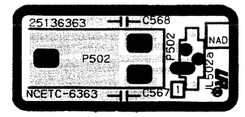
U06 : NAETC-6364 Transformer PC board



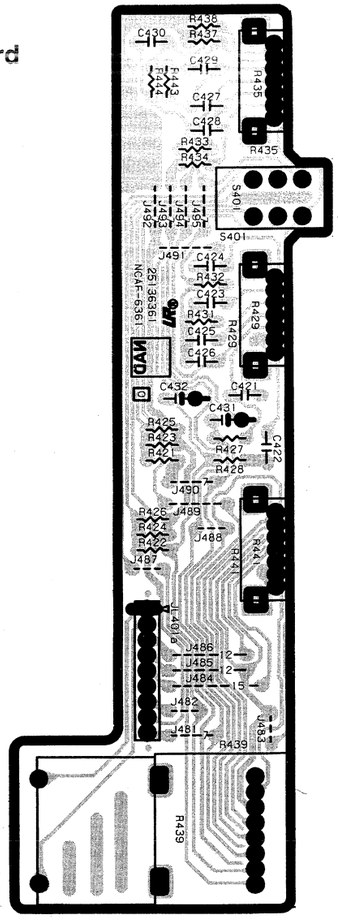
U14 : NAETC-6513 Sub PC board



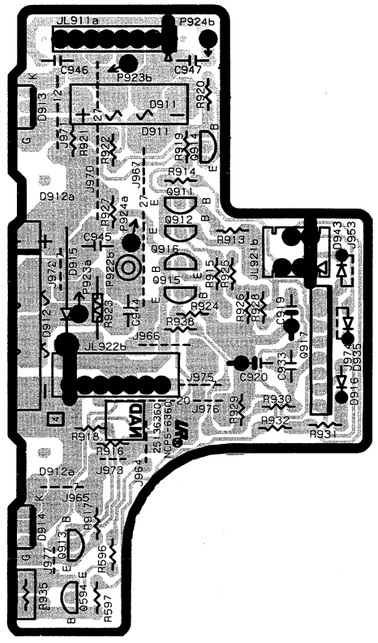
U05 : NAETC-6363 Head phone PC board



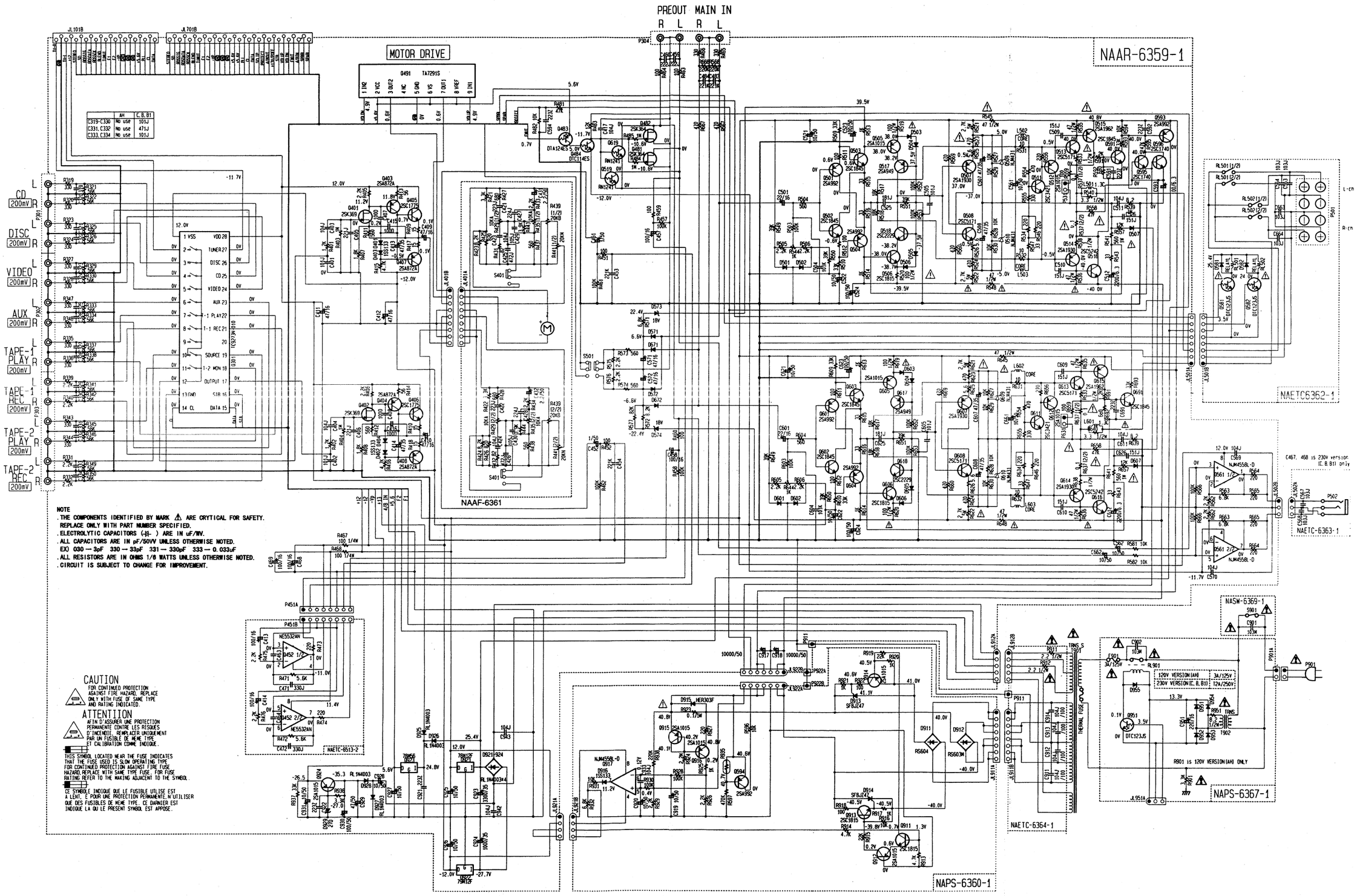
U03 : NAFF-6361 Control circuit PC board



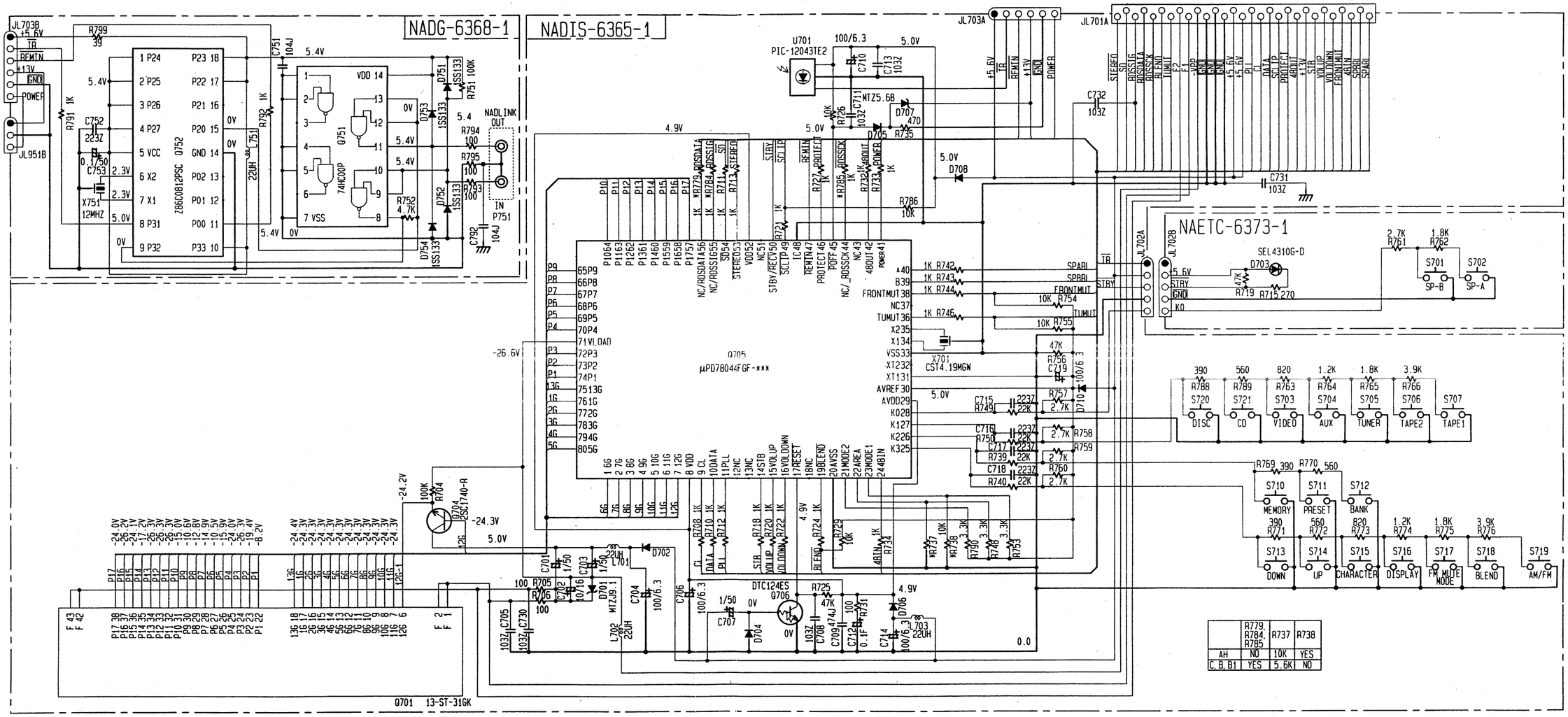
U02 : NAPS-6360 Sub power supply PC board



SCHEMATIC DIAGRAM


PREOUT MAIN IN
R L R L
MOTOR DRIVE
NAAR-6359-1
NAAF-6361
NAETC6362-1
NAETC-6363-1
NAETC-6513-2
NAPS-6367-1
NAPS-6360-1
NASW-6369-1
NAETC-6364-1
CD 200mV
DISC 200mV
VIDEO 200mV
AUX 200mV
TAPE-1 PLAY 200mV
TAPE-1 REC 200mV
TAPE-2 PLAY 200mV
TAPE-2 REC 200mV
NOTE
. THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRYTICAL FOR SAFETY.
REPLACE ONLY WITH PART NUMBER SPECIFIED.
. ELECTROLYTIC CAPACITORS (-|(-) ARE IN uF/WV.
. ALL CAPACITORS ARE IN pF/50VV UNLESS OTHERWISE NOTED.
EX) 030 — 3pF 330 — 33pF 331 — 330pF 333 — 0.033uF
. ALL RESISTORS ARE IN OHMS 1/6 WATTS UNLESS OTHERWISE NOTED.
. CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.
ATTENTION
AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.
THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE FUSE HAZARD, REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MAKING ADJACENT TO THE SYMBOL.
CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST A LENT. E POUR UNE PROTECTION PERMANENTE, N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DARNIER EST INDIQUE LA OU LE PRESENT SYMBOL EST APPOSE.
C467, 468 is 230V version (IC, B, B1) only
R901 is 120V VERSION (AH) ONLY
120V VERSION (AH) 3A/125V
230V VERSION (IC, B, B1) 12A/250V

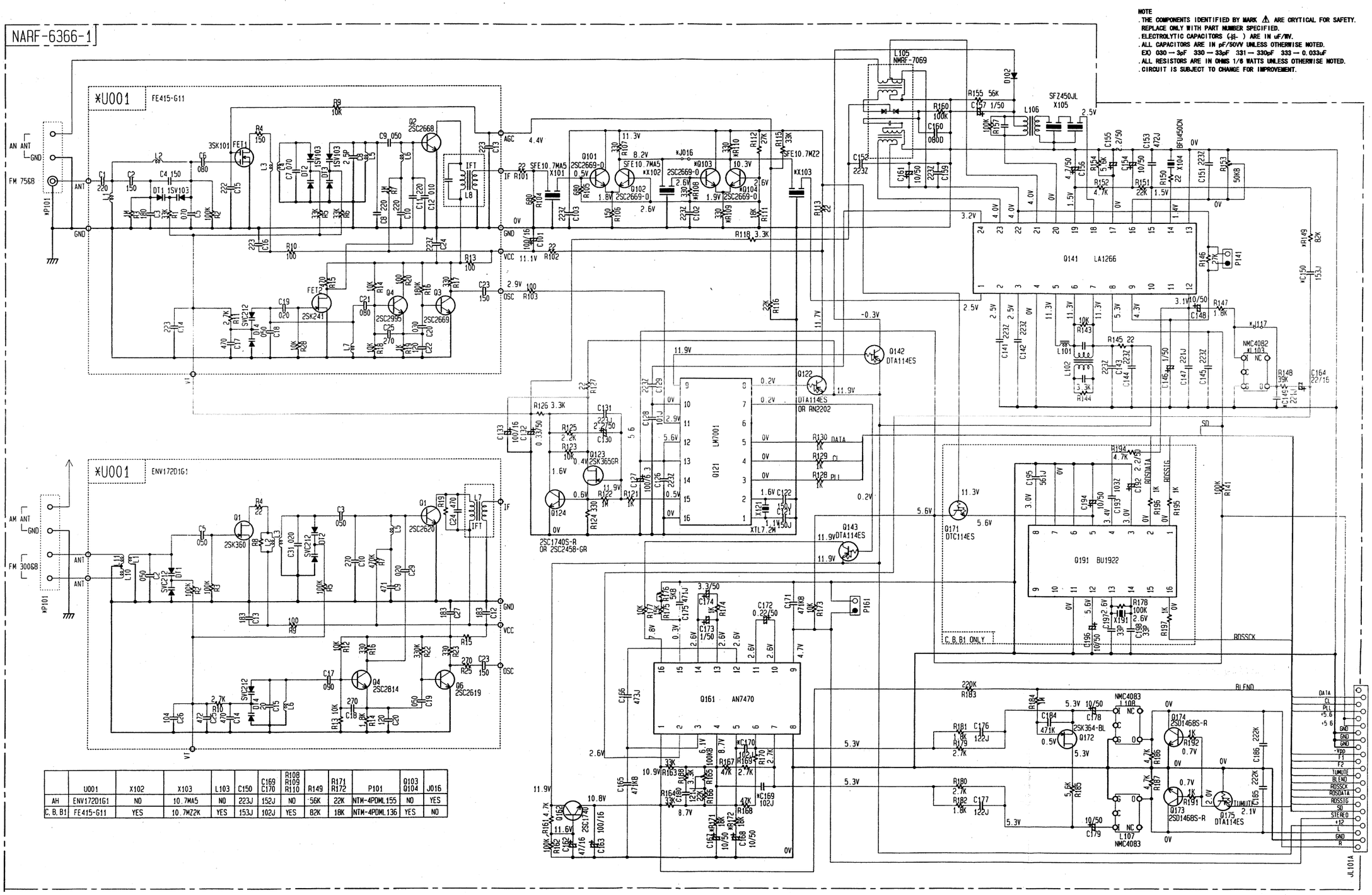
SCHEMATIC DIAGRAM



	R779, R784, R785	R737	R738
AH	NO	10K	YES
C, B, B1	YES	5.6K	NO

NOTE
. THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRYTICAL FOR SAFETY.
REPLACE ONLY WITH PART NUMBER SPECIFIED.
. ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN uF/WV.
. ALL CAPACITORS ARE IN pF/50VV UNLESS OTHERWISE NOTED.
EX) 030 — 3pF 330 — 33pF 331 — 330pF 333 — 0.033uF
. ALL RESISTORS ARE IN OHMS 1/6 WATTS UNLESS OTHERWISE NOTED.
. CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAM



	U001	X102	X103	L103	C150	C169 C170	R108 R105 R110	R149	R171 R172	P101	Q103 Q104	J016
AH	ENV172D1G1	NO	10.7MA5	NO	223J	152J	NO	56K	22K	NTW-4PDML155	NO	YES
C.B.B1	FE415-G11	YES	10.7MZ2K	YES	153J	102J	YES	82K	18K	NTW-4PDML136	YES	NO

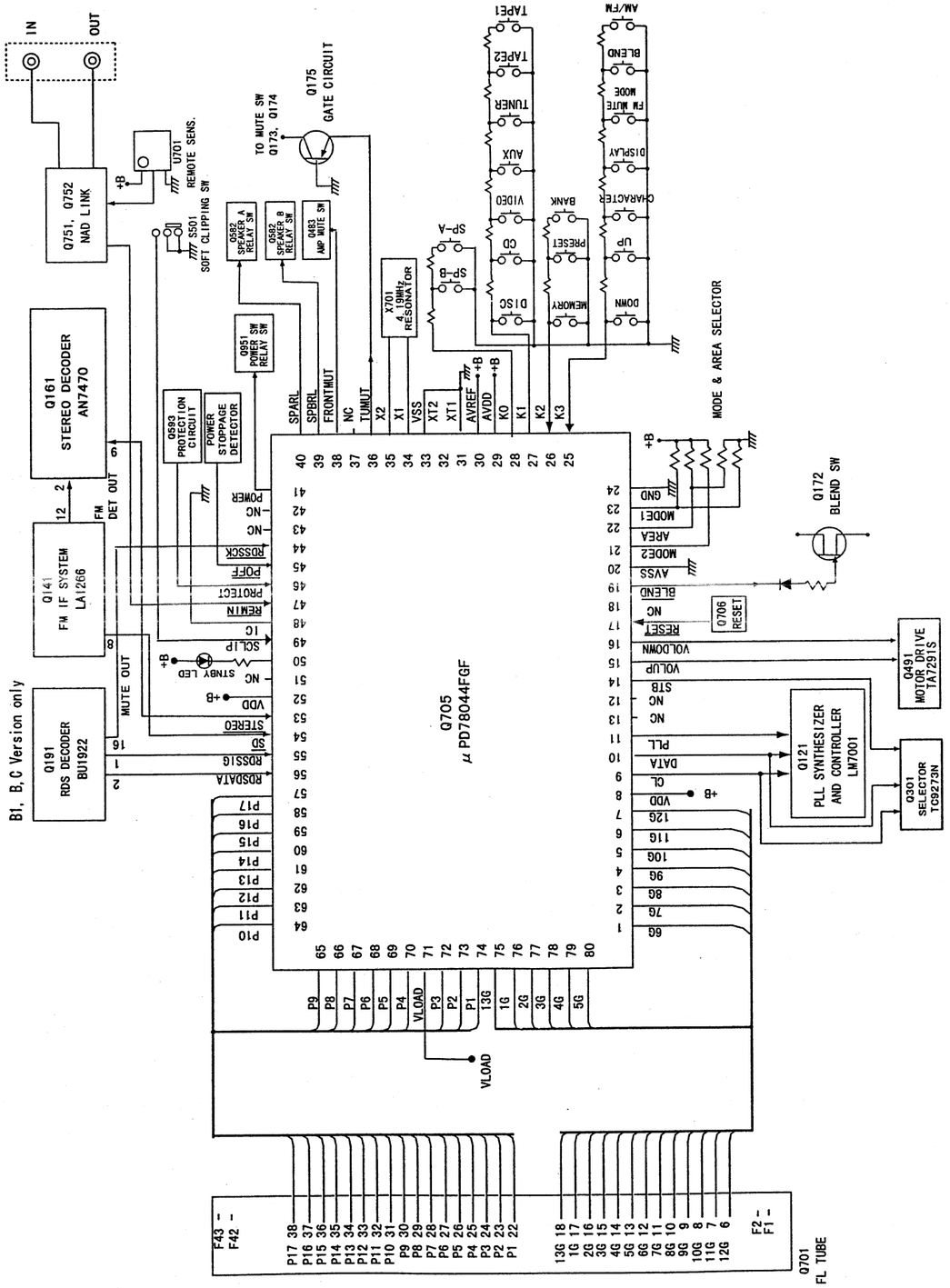
MICROPROCESSOR CONNECTION DIAGRAM & TERMINAL DESCRIPTION

Pin No.	Function	I/O	Description
1	7G/6G	O	Grid control output pin. On at the high level.
2	6G/7G	O	Grid control output pin. On at the high level.
3	5G/8G	O	Grid control output pin. On at the high level.
4	4G/9G	O	Grid control output pin. On at the high level.
5	3G/10G	O	Grid control output pin. On at the high level.
6	2G/11G	O	Grid control output pin. On at the high level.
7	1G/12G	O	Grid control output pin. On at the high level.
8	VDD	-	Power supply pin. (+5V)
9	CL	O	Clock out pin. Connect to the terminals CK of function switch.
10	DATA	O	Data output pin. Connect to the terminals DATA of function switch Q301(TC9273N), electric volume IC Q491 and surround mode switch.
11	PLL	O	Chip enable output pin for PLL IC(Q121).
12			NC
13			NC
14	STB	O	Chip enable output pin for function switch. (Q301)
15	VOLUP	O	Volume control output pin. (Volume up)
16	VOLDOWN	O	Volume control output pin. (Volume down) Refer table 1.
17	$\overline{\text{RESET}}$	I	System reset input pin.
18			NC
19	$\overline{\text{BLEND}}$	O	To blend swich (Q172). Blend : High
20	AVSS	-	Ground pin of A/D converter.
21	MODE2	I	Initializing input of operation mode.
22	AREA	I	Initializing input of frequency-area. (8-erea)
23	MODE1	I	Initializing input of operation mode.
24	GND	I	To GND.
25	K3	I	Operation key connection pin.
26	K2	I	Operation key connection pin.
27	K1	I	Operation key connection pin.
28	K0	I	Operation key connection pin.
29	AVDD	-	Analogue power supply of A/D converter. (+5V)
30	AVREF	-	Reference voltage input pin of A/D converter.
31	XT1	-	Crystal connection pin for sub system clock resonator. (to ground)
32	XT2	-	Crystal connection pin for sub system clock resonator.
33	VSS	-	Ground pin.
34	X1	I	Crystal connection pin for main system clock resonator.
35	X2	I	Crystal connection pin for main system clock resonator. Connect the ceramic osc.(4.19MHz)
36	TUMUT	O	Muting output pin for tuner section.
37			NC
38	FRONTMUT	O	Muting output pin for front amplifier.
39	SPBRL	O	Muting output pin of center SP,LS and RS at speaker-A off.
40	SPARL	O	Relay(Speaker-A) control output pin.
41	POWER	O	Power source control output pin. Power on: H
42			NC
43			NC
44	$\overline{\text{RDSSCK}}$	I	To connecting the SKC terminal of IC191(RDS -modulator).
45	$\overline{\text{POFF}}$	I	Power stoppage detector input pin.
46	PROTECT	I	Detector input pin of protection circuit.
47	$\overline{\text{REMIN}}$	I	Remote-control signal input pin.
48	IC	-	Internal connection pin. Connect to the ground terminal.
49	SCL IP	I	To connection INH pin for sound select signal IC.
50	$\overline{\text{STBY}}$/$\overline{\text{RECV}}$	O	Standby and received indicator output pin.
51			NC
52	VDD		Power supply pin (+5V).
53	$\overline{\text{STEREO}}$	I	Detector input pin of FM stereo broadcast.
54	$\overline{\text{SD}}$	I	Detector input pin of broadcast more than muting level.
55	RDSSIG	I	When RDSEN=1: to connect the SIG-port of IC 191.
56	RDSDATA	I	When RDSEN=1: to connect the DATA-port of IC 191.
57	P17/P4	O	Segment output pins. On at the high level.
70			
71	VLOAD	I	Pull down resistor connection pin of controller and driver of FL..
72	P3/P1	O	Segment output pins. On at the high level.
74			
75	13G/5G	O	Grid output pins. On at the high level.
80			

Table 1

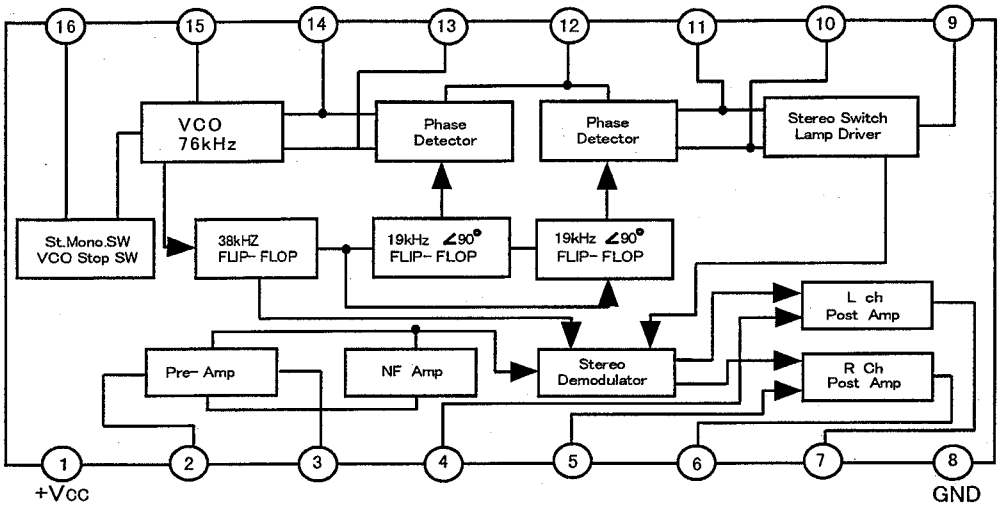
Operation	Output (Vol. up)	Output (Vol. down)
Stop	H	H
Vol. Up	H	L
Vol. Down	L	H
Power	L	L

Mute off :	H
Speaker-B on	H



IC BLOCK DIAGRAM

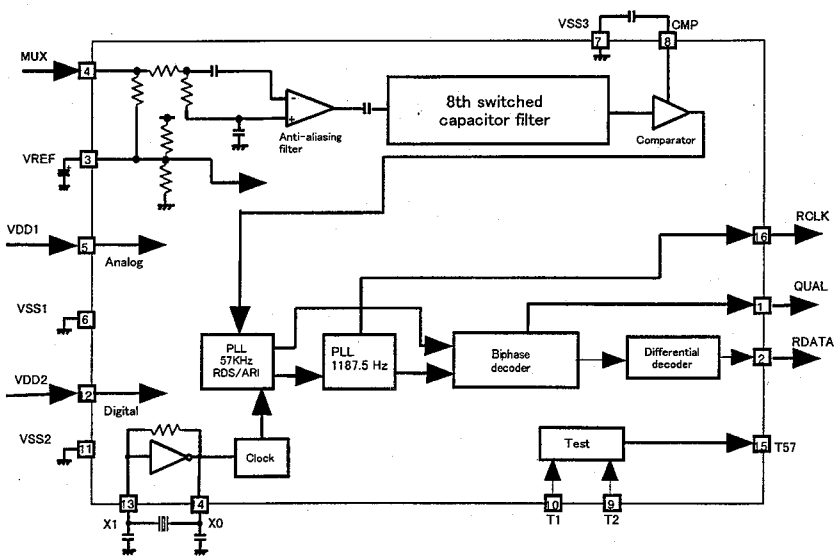
Q161 FM STEREO MULTIPLEX DEMODULATIOR AN7470



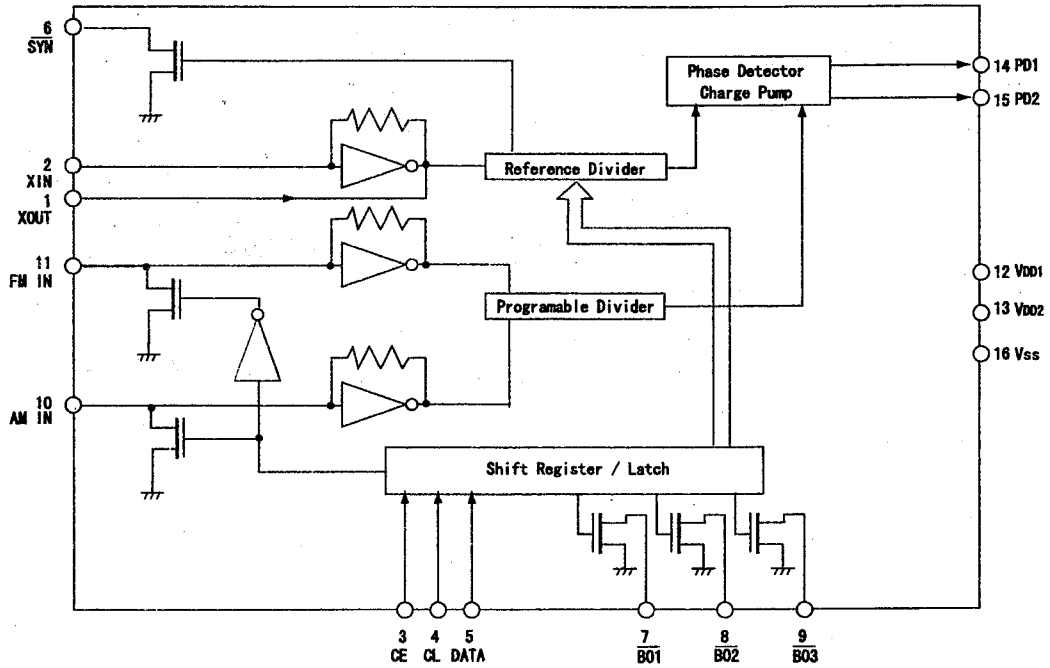
PIN DESCRIPTION

Pin No.	Pin name
1	Vcc
2	Composite signal input
3	Buffer Amp. Output
4	L Ch, Amp. Feedback
5	R Ch, Amp. Feedback
6	R Ch, Amp. Output
7	L Ch, Amp. Output
8	Ground
9	Stereo indicator and VCO freq. Monitor
10,11	Pilot detection low-pass filter
12	Pilot signal input
13	PLL low-pass filter
14	PLL low-pass filter
15	VCO RC time constant
16	Forced Mono. VCO killer

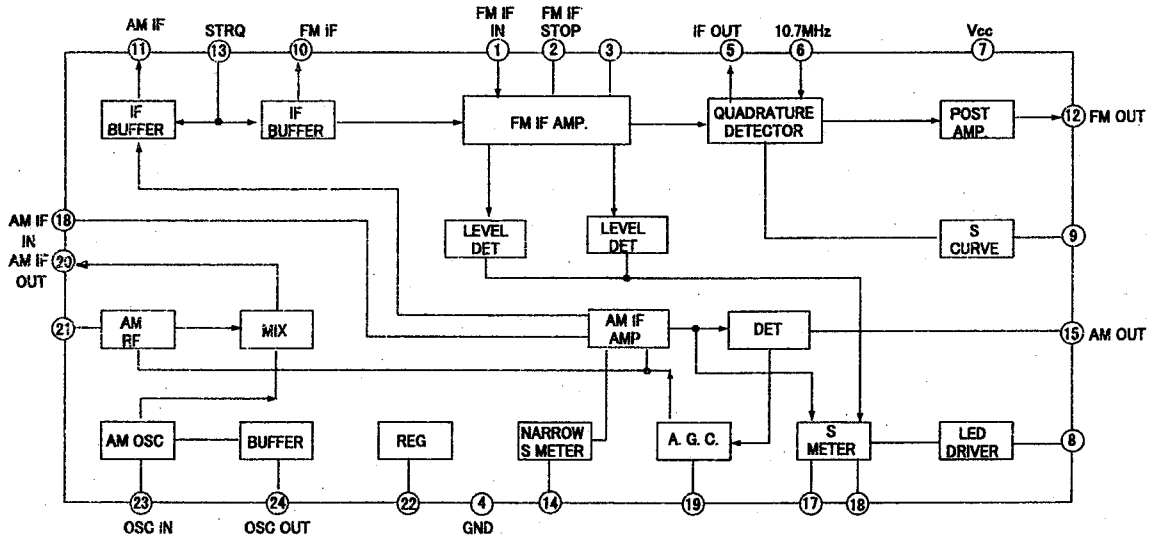
Q191 RDS DECODER BU1922



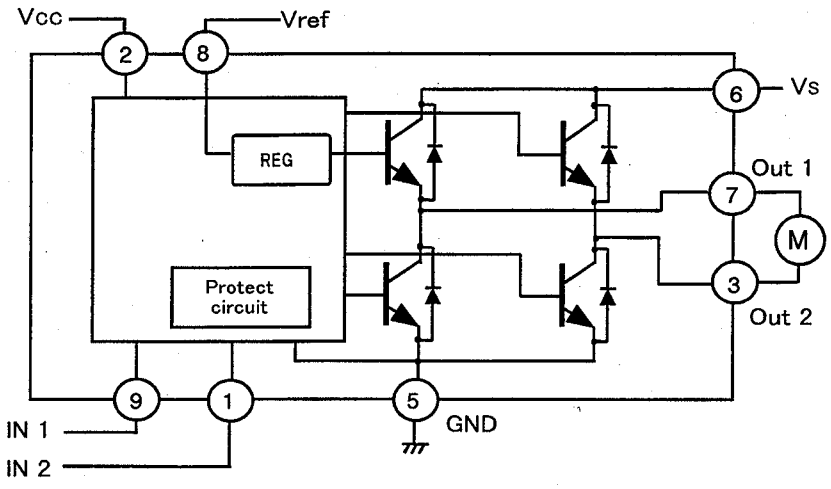
Q121 PLL Frequency Synthesized LSI
LM7001



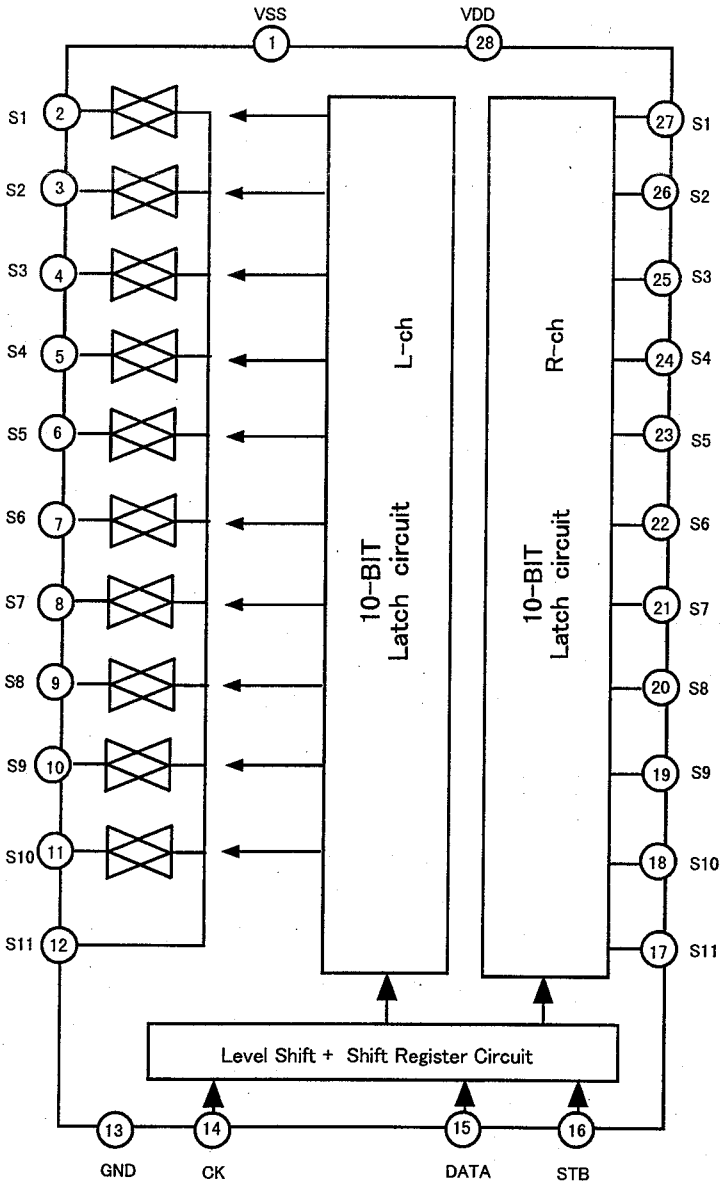
Q141 FM IF and AM RADIO SYSTEM
LA1266



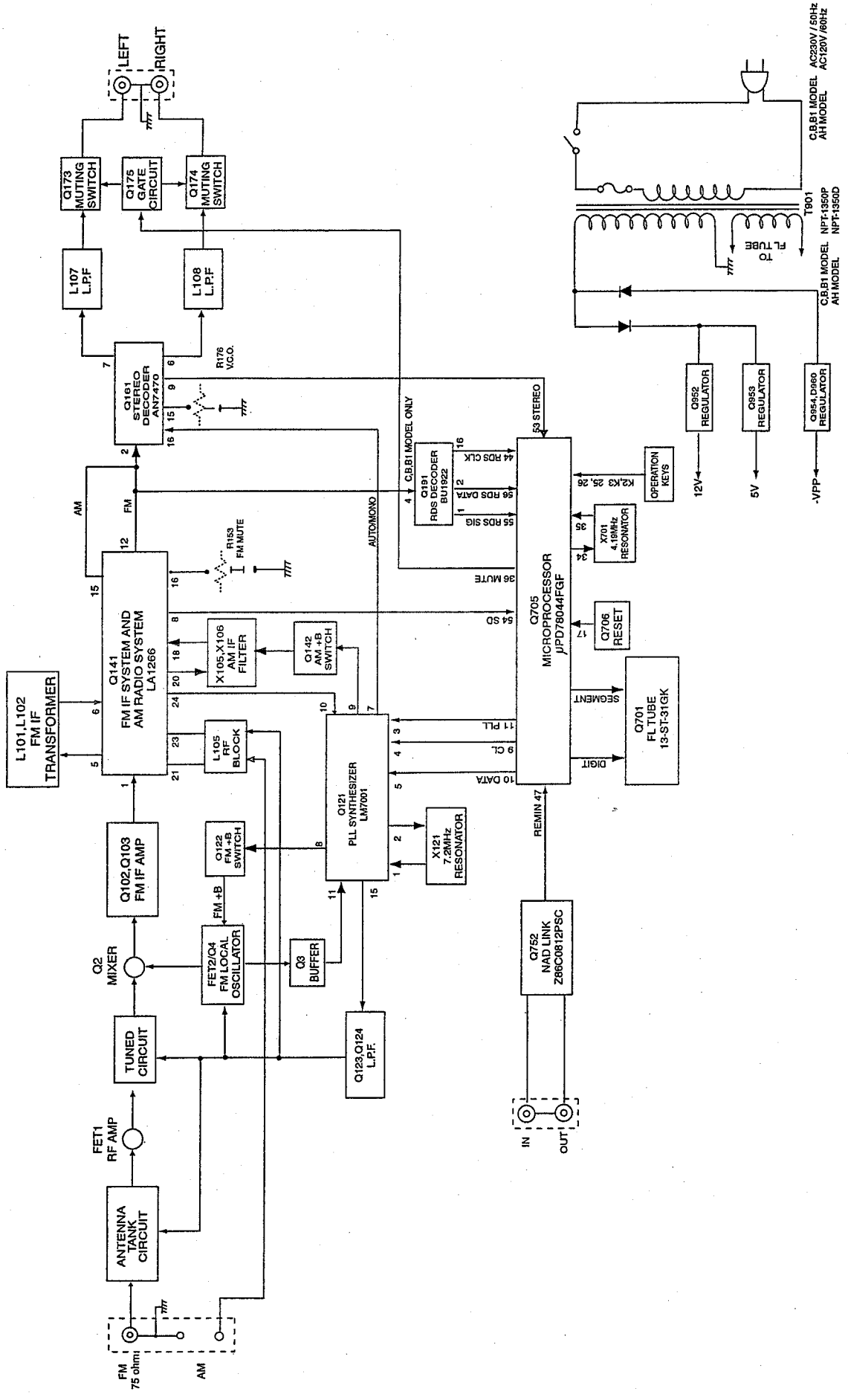
Q491 MOTOR DRIVER IC TA7291S



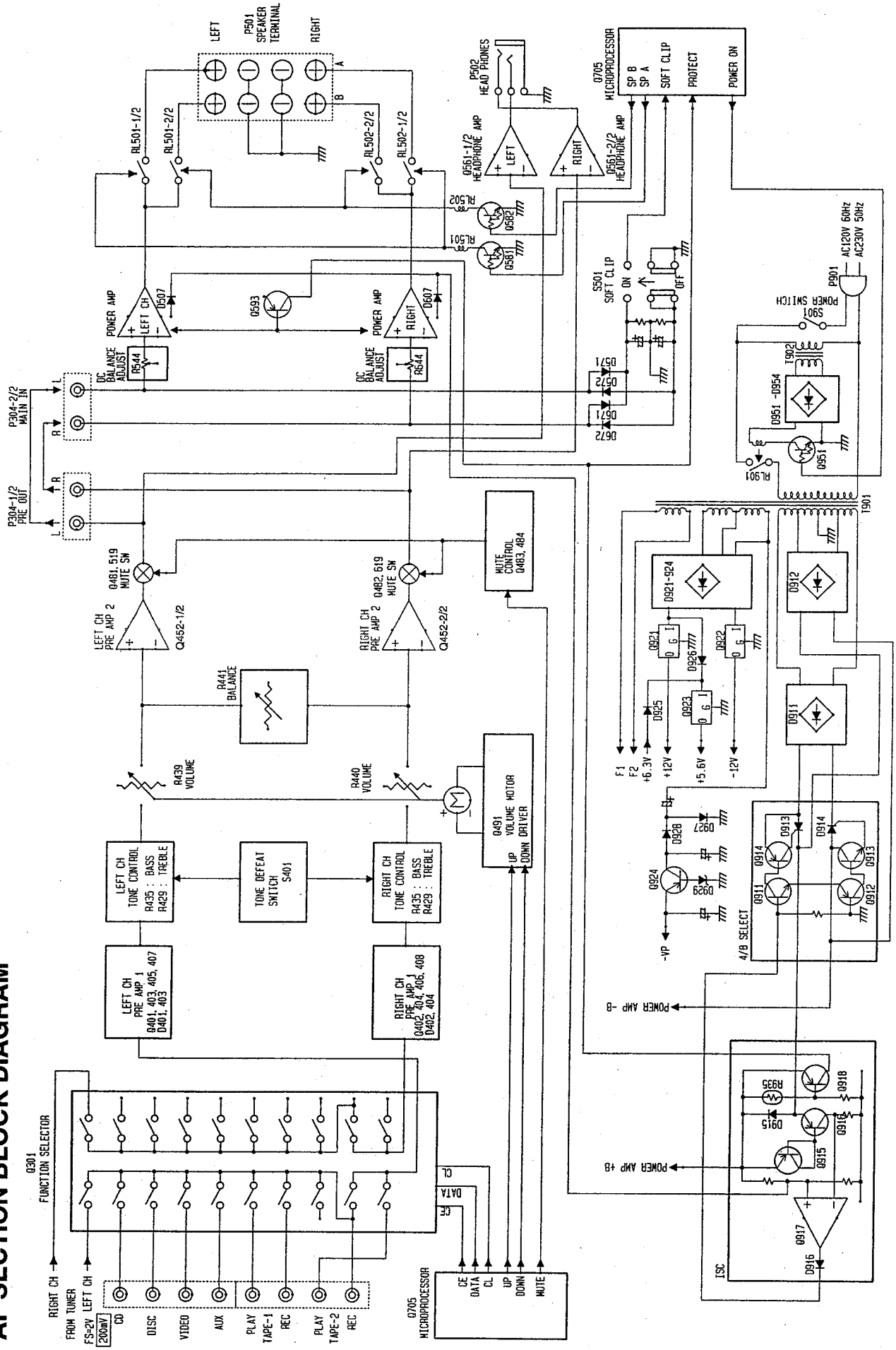
Q301 FUNCTION SELECT IC TC9273N



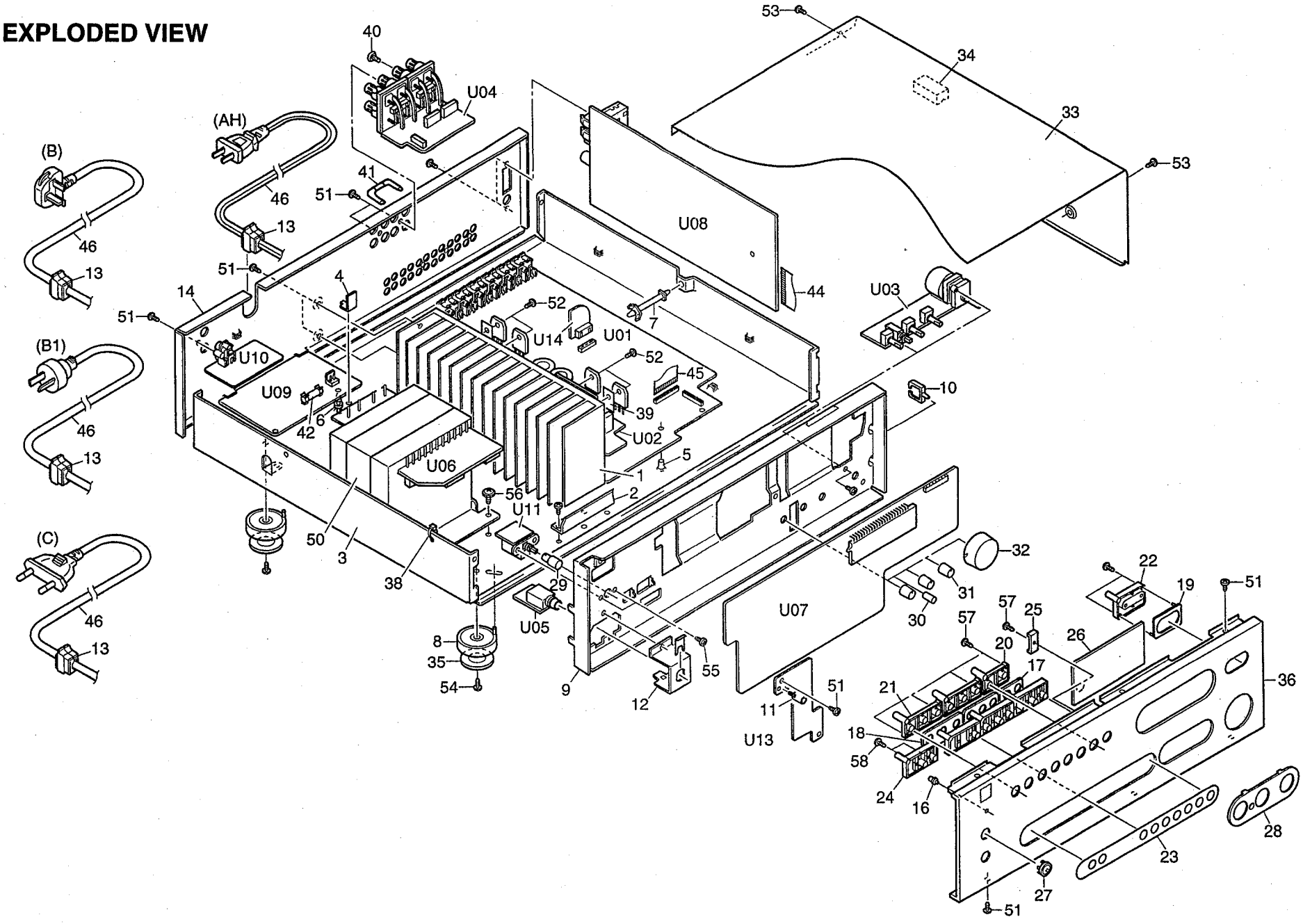
RF SECTION BLOCK DIAGRAM



AF SECTION BLOCK DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

REF. No.	PART No.	Q'ty	DESCRIPTION
1	27160417	1	Heatsink(Main AMP.)
2	27141671	1	Retainer(for main heat sink)
3	27100364A	1	Chassis
4	27130745	1	Bracket
5	27191044	2	KGPS-8RF,Holder
6	27190266	1	KGLS-12RF,Holder
7	27190369	1	Holder
8	27175306	4	Leg
9	27111082	1	Front bracket
10	27300243	2	WS-2W, Wire clamp (Front chassis)
11	27191051	1	Holder LED
12	27141728	1	Retainer for Head phone
13	27300750	1	⚠ Bushing, cord
14*AH	27122492	1	Rear panel
14*B1,B,C	27122493	1	Rear panel
16	28198858	1	Facet, Power
17	27267996	1	Guide DUO
18	27267997	2	Guide TRIO
19	27267998	1	Guide RACKER
20	28325605	1	Button DUO
21	28325606	2	Button TRIO
22	28325607	1	Button RACKER
23	27215307	1	Decorative frame
24	28325608	4	Button, Input
25	27191052	1	Holder (for input buttons)
26	28191831	1	Clear plate
27	27267995	1	Guide, Power
28	27215309	1	Decorative frame, Tone
29	28325604	1	Button, Power
30	28325610	1	Button, Defeat
31	28325609	3	Knob, Tone
32	28325611	1	Knob, Volume

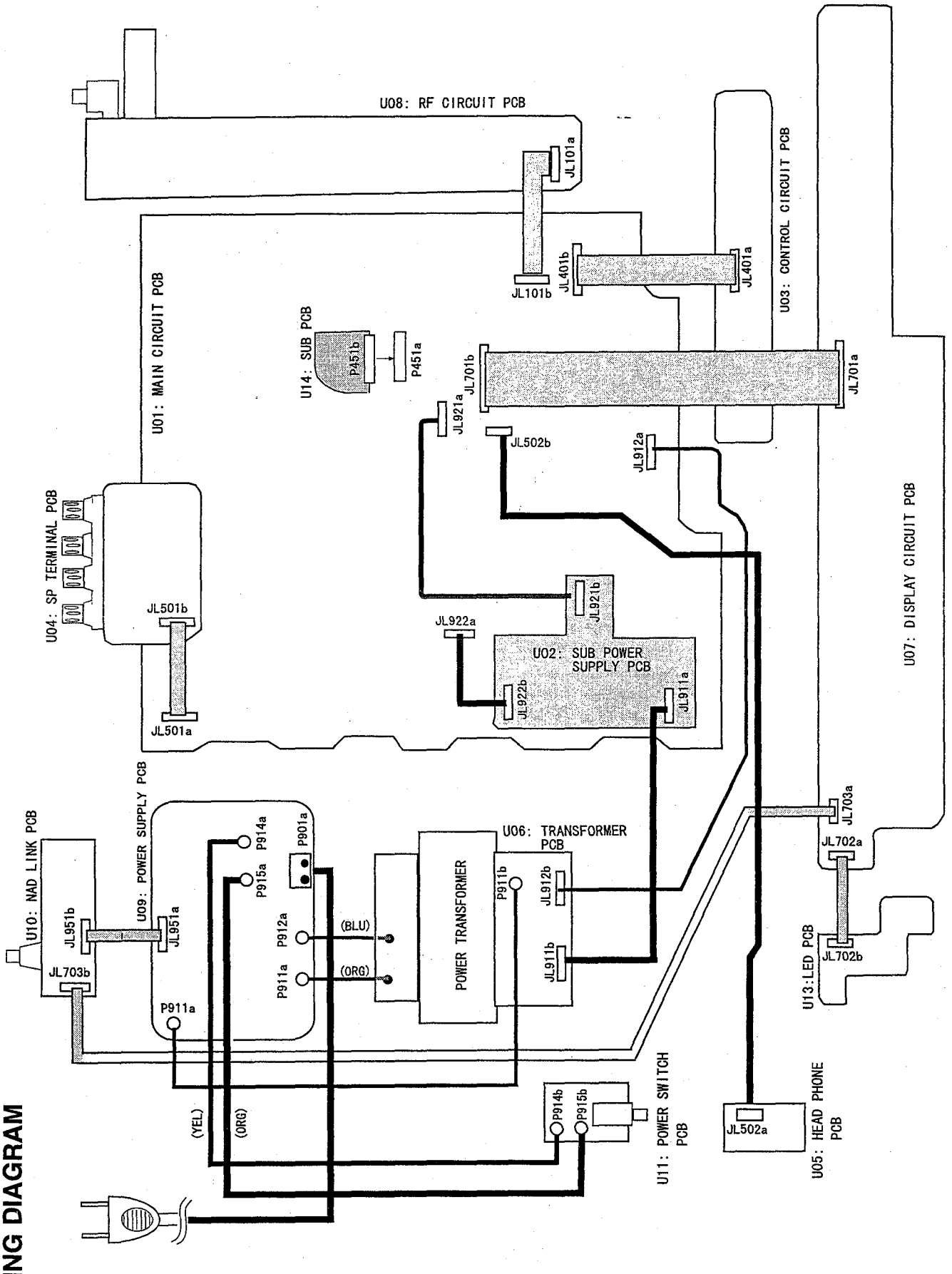
REF. No.	PART No.	Q'ty	DESCRIPTION
33	28184741A	1	Cover
34	28140265	1	Cushion(cover)
35	28141378	4	Cushion(leg)
36*AH	27212011	1	Front panel
36*B1,B,C	27212040	1	Front panel
38	260208	3	Wire tie
39	223024	4	Isolation sheet
40*B1,B,C	880048	8	P-3055B-8L, Plastic rivet
41	25055436	2	NPLG-2P418 Plug
42*AH	252161	1	⚠ 3A-UL/T-237, Fuse
42*B1,B,C	252074	1	⚠ 2A-SE-EAK, Fuse
44	2047231012	1	NCFC7-231012, Flexible cable
45	2047292012	1	NCFC7-292012, Flexible cable
46*AH	253279HIT	1	⚠ AS-UC-2#18, Power supply cord
46*B	253198HIT	1	⚠ AS-BS, Power supply cord
46*B1	253197HIT	1	⚠ AS-SAA, Power supply cord
46*C	253193HIT	1	⚠ AS-CEE, Power supply cord
50*AH	2301354	1	⚠ NPT-1348D, Power transformer
50*B1,B,C	2301355	1	⚠ NPT-1348P, Power transformer
51	838130088	50	3TTB+8B,Self-tapping screw
52	801433	4	3SMS8W.SW+14B(BC),Special screw
53	838430088	6	3TTB+8B(BC), Self-tapping screw
54	831130088	4	3TTW+8B,Self-tapping screw
55	838430107	2	3TTB+10S(BC),Self-tapping screw
56	830440089	4	4TTC+8C(BC),Self-tapping screw
57	838120068 or 838220068	8	2TTB+6B or 2TTB+6B(Ni), Self-tapping screw
58	838126068 or 833426068 or 834426068	9	2.6TTB+6B or 2.6TTP+6B(BC) or 2.6TTS+6B(BC), Self-tapping screw

REF. No.	PART No.	Q'ty	DESCRIPTION	REF. No.	PART No.	Q'ty	DESCRIPTION
U01*AH	1A786559-1A	1	NAAR-6359-1A, Main circuit PC board ass'y	U01*B1,B,C	1A786559-1B	1	NAAR-6359-1B, Main circuit PC board ass'y
U02*AH	1A786560-1A	1	NAPS-6360-1A, Sub power supply PC board ass'y	U02*B1,B,C	1A786560-1B	1	NAPS-6360-1B, Sub power supply PC board ass'y
U03*AH	1A786561-1A	1	NAAF-6361-1A, Control circuit PC board ass'y	U03*B1,B,C	1A786561-1B	1	NAAF-6361-1B, Control circuit PC board ass'y
U04*AH	1A786562-1A	1	NAETC-6362-1A, Speaker terminal PC board ass'y	U04*B1,B,C	1A786562-1B	1	NAETC-6362-1B, Speaker terminal PC board ass'y
U05*AH	1A786563-1A	1	NAETC-6363-1A, Head phone PC board ass'y	U05*B1,B,C	1A786563-1B	1	NAETC-6363-1B, Head phone PC board ass'y
U06*AH	1A786564-1A	1	NAETC-6364-1A, Transformer PC board ass'y	U06*B1,B,C	1A786564-1B	1	NAETC-6364-1B,Transformer PC board ass'y
U07*AH	1A786565-1A	1	NADIS-6365-1A, Display circuit PC board ass'y	U07*B1,B,C	1A786565-1B	1	NADIS-6365-1B, Display circuit PC board ass'y
U08*AH	1A786566-1A	1	NARF-6366-1A, RF circuit PC board ass'y	U08*B1,B,C	1A786566-1B	1	NARF-6366-1B, RF circuit PC board ass'y
U09*AH	1A786567-1A	1	NAPS-6367-1A, Power supply PC board ass'y	U09*B1,B,C	1A786567-1B	1	NAPS-6367-1B, Power supply PC board ass'y
U10*AH	1A786568-1A	1	NADG-6368-1A, NAD link PC board ass'y	U10*B1,B,C	1A786568-1B	1	NADG-6368-1B, NAD link PC board ass'y
U11*AH	1A786569-1A	1	NASW-6369-1A, Power switch PC board ass'y	U11*B1,B,C	1A786569-1B	1	NASW-6369-1B, Power switch PC board ass'y
U13*AH	1A786573-1A	1	NAETC-6373-1A, LED PC board ass'y	U13*B1,B,C	1A786573-1B	1	NAETC-6373-1B, LED PC board ass'y
U14*AH	1A786513-1A	1	NAETC-6513-1A, Sub PC board ass'y	U14*B1,B,C	1A786513-1B	1	NAETC-6513-1B, Sub PC board ass'y

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE:
<AH>: U.S.A., Canadian model only
<B> : U.K. model only
<B1>: Australian model only
<C>: European model only

WIRING DIAGRAM



ELECTRICAL PALTS LIST

NOTE: Replacement of the transistor of mark *, if necessary, must be made from the same beta group (HFE) as the original type.

REF. No.	PART No.	DESCRIPTION
U14: Sub PC board (NAETC-6513)		
Capacitors		
C413	354764709	47 μ F,35V,Elect.
C414	354764709	47 μ F,35V,Elect.
IC		
Q452	22240656	NE5532AN
Others		
P451b	25055912	NPLG-8P865
U01: Main circuit PC board (NAAR-6359)		
Capacitors		
C457,C458,C468, C469,C473,C474, C593	354741019	100 μ F,16V,Elect.
C501,C601	354742209	22 μ F,16V,Elect.
C409-C412, C571,C572	354744709	47 μ F,16V,Elect.
C418	354762209	22 μ F,35V,Elect.
C507,C508,C607, C608	354764709	47 μ F,35V,Elect.
C451,C452	354780109	1 μ F,50V,Elect.
C521,C522,C561, C562,C621,C622, C661,C662,C931	354781009	10 μ F,50V,Elect.
C925-C928, C523,C524,C623, C624,C930	354781019	100 μ F,50V,Elect.
C929	354784709	47 μ F,50V,Elect.
C504,C604	374721015	100pF±10%,50V,Plastic
C403,C404,C417, C423,C511	374721044	0.1 μ F±5%,50V,Plastic
C569,C570,C611, C942,C943	374721044	0.1 μ F±5%,50V,Plastic
C453,C454*AH	374722215	220pF±10%,50V,Plastic
C483,C484	374722215	220pF±10%,50V,Plastic
C459-C462 *B1,B,C	374722224	2200pF±5%,50V,Plastic
C917,C918	3504344	10000 μ F,50V,Elect.
C612,C512	354722229	2200 μ F,6.3V,Elect.
C924	354761029	1000 μ F,35V,Elect.
C923	354763329	3300 μ F,35V,Elect.
Diodes		
D401-D404, D501-D507, D571-D574, D601-D607, D671,D672	223163	1SS133
D921-D928	22380260 or 22380035	RL1N4003 or GP104003E
D929	224472704	MTZJ27D Zener
Jumper leads		
JL401a	25051113	NSCT-9P900
JL501a	25051112	NSCT-8P899
JL502b	25055624	NPLG-3P586
JL701b	25051836 or 25050969	NSCT-29P1623 or NSCT-29P756
JL921a	25051088	NSCT-4P875
JL922b	25050271	NSCT-7P99
JL101b	25050963 or 25051830	NSCT-23P750 or NSCT-23P1617
JL912a	25051109	NSCT-5P896

REF. No.	PART No.	DESCRIPTION
Coils		
L501,L601	231176S	S-1.3C
L502,L503,L602, L603	5597-45502	Ferrite Core
Ics		
Q301	22240881	TC9273N-010
Q491	22240239	TA7291S
Q561	22240293 or 22240247	NJM4558L-D or BA15218N
Q509,Q510,Q609, Q610	22241254	NJM431L
Q921	222780125	78M12HF
Q921a	27160209	HEAT-SINK(RAD-67)
Q921b	838430107	3TTB+10S(BC), Self-tapping screw
Q922	222790125	79M12HF
Q922a	27160429	Heat sink
Q922b	838430107	3TTB+10S(BC), Self-tapping screw
Q923	222780565JRC	78M56(NJM78M56FA)
Transistors		
Q401,Q402	2214736 or 2214735	2SK369-BL or 2SK369-GR
Q403,Q404,Q407, Q408	2211085	2SA872A-E
Q405,Q406	2215116	2SC1775-F
Q481,Q482	2215196	2SK364-BL
Q483	2212600	DTA124ES
Q484	2213290	DTC114ES
Q501,Q504,Q601, Q604	2211793	2SA992-E
Q502,Q503,Q602, Q603	2211733	2SC1845-E
Q505,Q512,Q605	2211455	2SA1015-GR
Q506,Q606,Q913, Q612,Q924	2211255	2SC1815-GR
Q507,Q508,Q514, Q607,Q614	2203000	2SA1930
Q511,Q611,Q611	2212654 or 2212653	2SC3421-Y or 2SC3421-O
Q511a	27160416A	(TR) Heat sink
Q511b	838430107	3TTB+10S(BC), Self-tapping screw
Q611a	27160416A	Heat sink (TR)
Q611b	838430107	3TTB+10S(BC),
Q513,Q608,Q613	2203010	2SC5171
Q515,Q615	2202833 or 2202832	* 2SA1962-O or 2SA1962-R
Q516,Q616	2202843 or 2202842	* 2SC5242-O or 2SC5242-R
Q517,Q617,Q518, Q618	2211354 or 2211353	2SA949-Y or 2SA949-O
Q519,Q619	2213631	RN1241-A
Q591,Q691	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q593	2211792 or 2211793	2SA992-E or 2SA992-F
Q595,Q596	2213284	2SC1740S-R

REF. No.	PART No.	DESCRIPTION
Resistors		
R467,R468	415421013	100Ω ±2%,1/4W,Carbon
R519,R520,R619, R620	443521014	⚠ 100Ω ±5%,1/2W, Metal oxide
R521,R522,R621, R622	4400044F	⚠ 2.7kΩ ±5%,5W, Metal oxide
R533,R538,R633, R638	453530104	⚠ 1Ω ±5%,1/2W,Metal
R534	5210255T	N06HR200BC,Trimming
R535,R536,R545, R548,R636,R645, R648	443524704	⚠ 47Ω ±5%,1/2W, Metal oxide
R537,R637	4500030	⚠ MPC722-5WK-0.1, Metal plate
R539,R639	453630824	⚠ 8.2Ω ±5%,1/2W,Metal
R540,R640	453530334	⚠ 3.3Ω ±5%,1/2W,Metal
R541,R641	443625614	⚠ 560Ω ±5%,1W, Metal oxide
R544,R644	5210258	N06HR1KBC,Trimming
R634	5210255	N06HR200BC,Trimming
Switches		
S501	25065286	NSS-22112
Jacks		
P302,P303	25045565 or 25045508	NPJ-6PDBL380 or NPJ-6PDBL323
P304	25045356	NPJ-4PDBL202
Others		
P451a	25052137	NSCT-8P2035 Socket
P531,P631	25055038	NPLG-2P29 Plug
P301	25045356	NPJ-4PDBL202 Pin jack
P923	72120080505	1007#24 .2/7HAND B
E921	260224	CP-1S Clamp

Sub power supply PC board (NAPS-6360)

Capacitors		
C919,C920	354781009	10μF,50V,Elect.
C933	374721044	0.1μF±5%,50V,Plastic
Diodes		
D911	22380281	RS604
D912	22380274 or 22380038	RS603M or RBV602
D912a	27160419	(SCR) Heat sink
D912b	838430107	3TTB+10S(BC), Self-tapping
D913,D914	226065	SF8JZ47
D915	22380012	HER303F
D916	223163	1SS133
Transistors		
Q594	2211792 or 2211793	2SA992-E or 2SA992-F
Q911	2211255	2SC1815-GR
Q912,Q914-Q916	2211455	2SA1015-GR
ICs		
Q917	22240293	NJM4558L-D
Resistors		
R923	4000116	⚠ MPC74-5WK-0.1, Metal plate
R935	4000150	PTH9M04BC222TS2F333 Thermistor
Others		
JL911a	25051112	NSCT-8P899
JL921b	25055625	NPLG-4P587
JL922a	25051111	NSCT-7P898

Control circuit PC board (NAAF-6361)

Capacitors		
C421,C422	374722234	0.022μF±5%,50V,Plastic
C424	374721044	0.1μF±5%,50V,Plastic
C425,C426	374724724	4700pF±5%,50V,Plastic
C427,C428	374722244	0.22μF±5%,50V,Plastic
C429,C430	374721054	1μF±5%,50V,Plastic
C431,C432	354780229	2.2μF,50V,Elect.
Resistors		
R429,R435	5132447	N14RGLC10KA25F, Variable
R439	5142445	N16RGL20KBTP30F, Variable
R441	5132446	N14RGLC20KMN25F, Variable
Switches		
S401	25035698	NPS-123-L661
Others		
JL401b	25050273	NSCT-9P101

Speaker terminal PC board (NAETC-6362)

Capacitors		
C563,C564, C663,C664	374721034	0.01μF±5%,50V,Plastic
Diodes		
D581,D582	223163	1SS133
Terminals		
P501	25060125	NTM-8PDMN058
Transistors		
Q581,Q582	2213640	DTC123JS
Relays		
RL501,RL502	25065517	⚠ NRL-2P5A-DC24-098
Other		
JL501b	25050272	NSCT-8P100

Head phone PC board (NAETC-6363)

Capacitors		
C567,C568*B1,B,C	374721034	0.01μF±5%,50V,Plastic
Terminal		
P502	25045255	YKB26-5009 Jack
Others		
JL502a	25051087	NSCT-3P874

Transformer PC board (NAETC-6364)

Capacitors		
C911-C914	374731044	0.1μF±5%,100V,Plastic
Resistors		
R911,R912	453530224	⚠ 2.2Ω ±5%,1/2W,Metal
Others		
JL911b	25050285	NSCT-8P113
JL912b	25050282	NSCT-5P110

Display circuit PC board (NADIS-6365)

Capacitors		
C701,C703,C707	355780109	1μF,50V,Elect.
C702	355741009	10μF,16V,Elect.
C704,C706,C710, C714,C719	354721019	100μF,6.3V,Elect.
C709	375524744	0.47μF±5%,50V,Plastic
C712	3000076 or 3000078	EECS5R5T104 or DX-5R5L104
Diodes		
D701	224470913	MTZJ9.1C Zener
D702,D704,D706, D708,D710	223163	1SS133
D707	224470562	MTZJ5.6B Zener
Coils		
L701-L703	233454M022	NCH-1452 022M

REF. No.	PART No.	DESCRIPTION
Fluorescent tube		
Q701	212194	13-ST-31GK FL tube
Q701a	27191056	(FL) Holder
Ics		
Q705	22241255	MPD78044FGF-114
Transistors		
Q704	2213284	2SC1740S-R
Q706	2213160	DTC124ES
Switches		
S703-S707, S710-S721	25035675	NPS-111-111-S628
Ceramic filter		
X701	3010163	CST4.19MGW,Ceramic
Others		
JL701a	25051873 or 25050935	NSCT-29P1660 or NSCT-29P722 Socket
JL702a	25051089	NSCT-5P876 wire holder
JL703a	25051090	NSCT-6P877 wire holder
U701	24130011	PIC-12043TE2 Remote sensor

RF circuit PC board (NARF-6366)

Capacitors		
C127	354721019	100 μ F,6.3V,Elect.
C101,C133,C163	354741019	100 μ F,16V,Elect.
C164	354742209	22 μ F,16V,Elect.
C162	354744709	47 μ F,16V,Elect.
C130,C155	354780229	2.2 μ F,50V,Elect.
C174	354780339	3.3 μ F,50V,Elect.
C156	354780479	4.7 μ F,50V,Elect.
C148,C154,C161, C167,C168	354781009	10 μ F,50V,Elect.
C172	354782299	0.22 μ F,50V,Elect.
C132	354783399	0.33 μ F,50V,Elect.
C146,C157,C173	355780109	1 μ F,50V,Elect.
C175	370134714	470pF±5%,100V,Plastic
C169,C170 *B1,B,C	374721024	1000pF±5%,50V,Plastic
C176,C177	374721224	1200pF±5%,50V,Plastic
C169,C170*AH	374721524	1500pF±5%,50V,Plastic
C150*B1,B,C	374721534	0.015 μ F±5%,50V,Plastic
C131	374722234	0.022 μ F±5%,50V,Plastic
C150*AH	374722234	0.022 μ F±5%,50V,Plastic
C153	374724724	4700pF±5%,50V,Plastic
C166	374724734	0.047 μ F±5%,50V,Plastic
C178,C179	354781009	10 μ F,50V,Elect.
C192*B1,B,C	354780229	2.2 μ F,50V,Elect.
C194,C196 *B1,B,C	354781009	10 μ F,50V,Elect.
C195	374725614	560pF±5%,50V,Plastic
Diodes		
D102,D705	223163	1SS133
Sockets		
JL101a	25051867 or 25050929	NSCT-23P1654 or NSCT-23P716

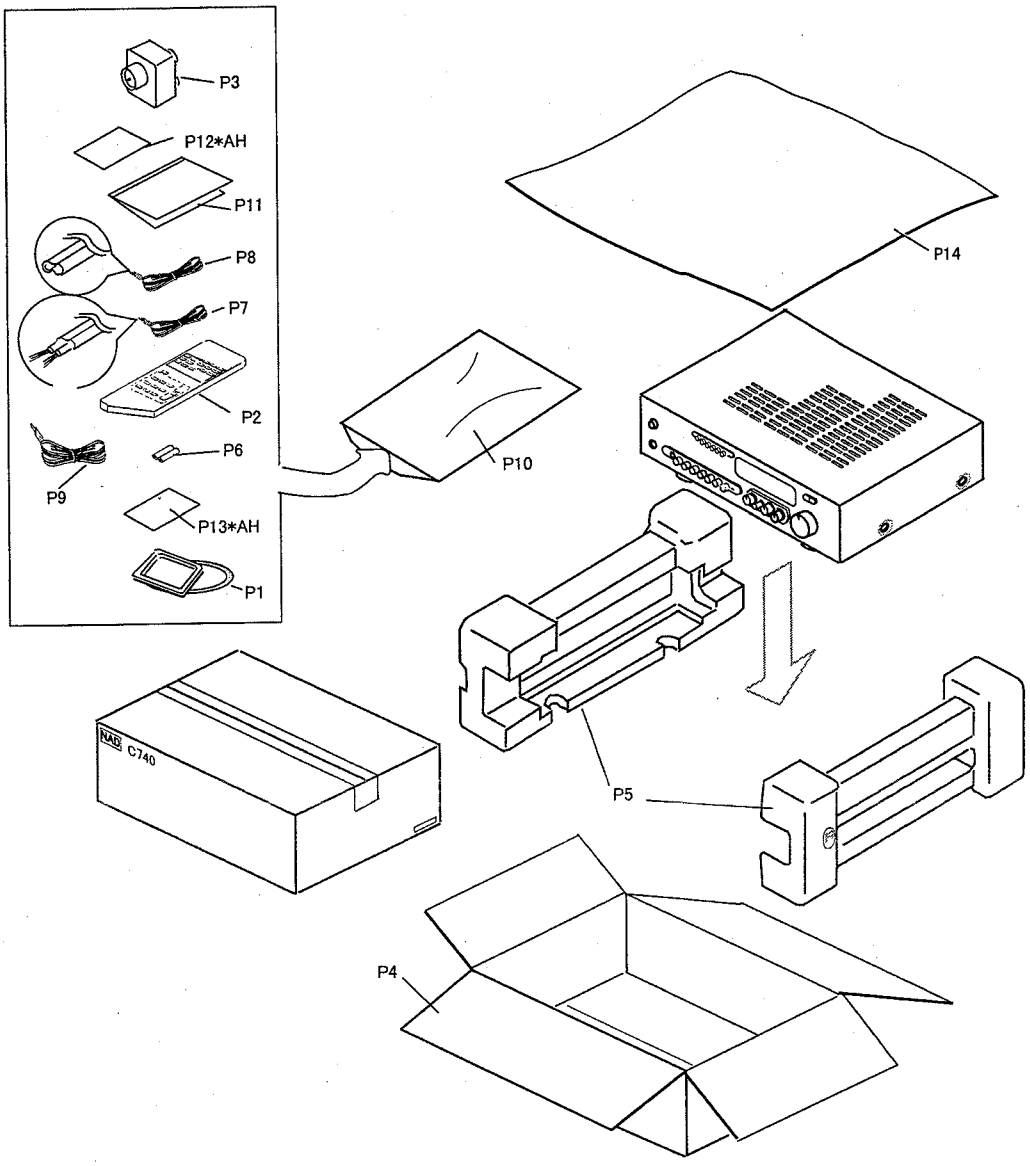
REF. No.	PART No.	DESCRIPTION
Coils		
L101	233469	NFIF-4087
L102	233470	NFIF-4088
L103*B1,B,C	232164	NMC-4082
L105	231226	NMRF-7069
L106	232166	NMIF-4089
L107,L108	232165	NMC-4083
Terminals		
P101*B1,B,C	25060117	NTM-2PDML051 Antenna
P101*AH	25060233	NTM-4PDML155 Antenna
P101a:B1,B,C	27150397	
P101a*AH	27150432	
Ics		
Q121	22241076 or 22240090	LM7001J or LM7001
Q141	22240039	LA1266
Q161	22240242	AN7470
Q191*B1,B,C	22241124	BU1922
Transistors		
Q101,Q102	2215063	2SC2669-0
Q103,Q104*B1,B,C	2215063	2SC2669-0
Q122,Q142,Q143	2213510 or 2214350	DTA114ES or RN2202
Q123	2212445	2SK365-GR
Q124,Q162	2213284	2SC1740S-R
Q171*B1,B,C	2213290 or 2214230	DTC114ES or RN1202
Q172	2215196	2SK364-BL
Q173,Q174	2215024	2SD1468S-R
Q175	2213510	DTA114ES
Resisters		
R153	5210265	N06HR50KBC,Trimming
R165	5210266	N06HR100KBC,Trimming
R176	5210261	N06HR5KBC,Trimming
Frontend		
U001*B1,B,C	240089	FE415-G11
U001*AH	240098	ENV172D1G1
Resonators		
X101	3010071	SFE-10.7MA5 RED
X191*B1,B,C	3010203	AF6146CG,Crystal
X102*B1,B,C	3010071	SFE-10.7MA5 RED
X103*AH	3010071	SFE-10.7MA5 RED
X103*B1,B,C	3010130	SFE10.7MZ2K
X104	5671-7137C	BFU450C4N
X105	3010123	SFZ450JL
X121	3010141	XTL-7.2M,Crystal OSC.
Others		
P141,P161	25055038	NPLG-2P29

Power supply PC board (NAPS-6367)

Capacitors		
C951	354742219	220 μ F,16V,Elect.
C902	3500191	DE7150F-103M
Diodes		
D951-D954	22380032 or 22380260 or 22380035	1SR139-100 or RL1N4003 or GP104003E
D955	223163	1SS133
Transistors		
Q951	2213640	DTC123JS
Resistors		
R901*AH	431533355	⚠ 3.3M Ω,1/2W,Solid

REF. No.	PART No.	DESCRIPTION
Resistors		
RL901	25065515	⚠ NRL-1P5A-DC12-096
R951	453530824	⚠ 8.2Ω ±5%,1/2W,Metal
Transformers		
T902*B1,B,C	2300671A	⚠ NPT-1111P,Power
T902*AH	2301258	⚠ NPT-1294D,Power
Others		
F901a	25050065	YSH403T Fuse holder
F901b*AH	29360684	Fuse label
JL951a	25051107	NSCT-3P894 Jumper lead
P901a	25055675	NPLG-2P631 Plug for AC cord
NAD link PC board (NADG-6368)		
Capacitors		
C751,C792	374721044	0.1μF±5%,50V,Plastic
C753	354781099	0.1μF,50V,Elect.
D751-D754	223163	1SS133
Ics		
Q751	222740005	74HC00P
Q752	22241266	Z86C0812PSC-R2536
Others		
L751	233454K220	NCH-1452 220K
P751	25045568	NPJ-2PDY383 Pin jack
JL703b	25055627	NPLG-6P589
JL951b	25050267	NSCT-3P95
X751	3010252	CST12.0MTW, Ceramic OSC.
Power switch PC board (NASW-6369)		
C901	3500191	⚠ DE7150F-103M
C901a	27301216	⚠ SB1925A Cover
S901	25035550	⚠ NPS-111-L512P Switch
LED PC board (NAETC-6373)		
D703	225292D	SEL4310G-D LED
JL702b	25051089	NSCT-5P876 Wire holder
S701,S702	25035675	NPS-111-111-S628 Speakers switch

PACKING DIAGRAM



PARTS LIST

REF. No.	PART No.	Q'ty	DESCRIPTION
P1	232140	1	NMA-3057, AM loop antenna
P2	24140380S	1	RC-450S, Remote control
P3*AH	25065462	1	YAE21-0237, Antenna adapter
P4*AH	29053323	1	Carton box
P4*B1,B,C	29053353	1	Carton box
P5	29091858	1	Pad ass'y
P6	3010124	2	UM-4, Battery
P7*AH	292111	1	FM antenna
P8*B1,B,C	292112	1	FM antenna
P9	2010317	1	NAD link cable
P10	29100097-1A	1	350*250, Styrene bag
P11	29342608	1	Instruction manual
P12*AH	29355233	1	Instruction sheet
P13*AH	29365078	1	Warranty card
P14	29100034-1	1	Styrene bag

NOTE; <AH> : U.S.A., Canadian model only
<B> : U.K. model only
<B1> : Australian model only
<C> : European model only

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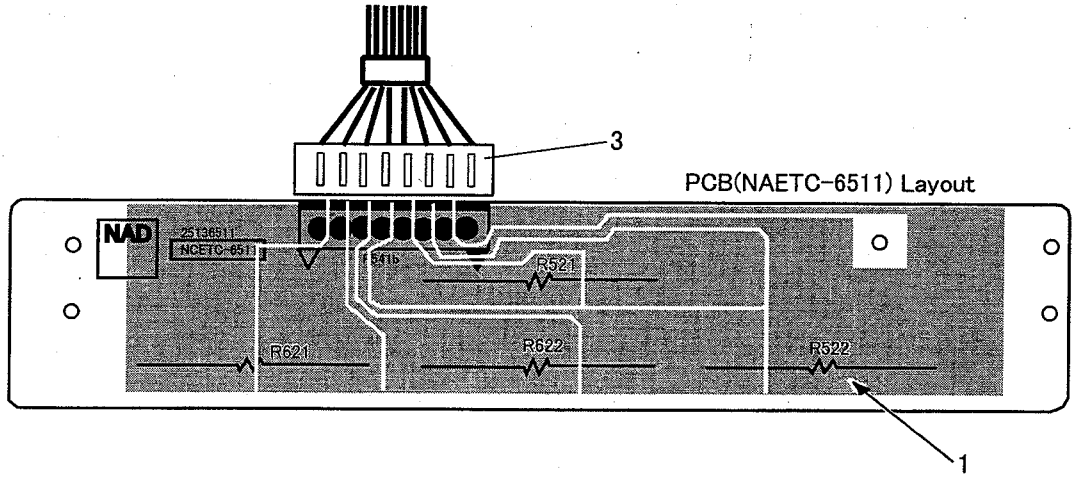
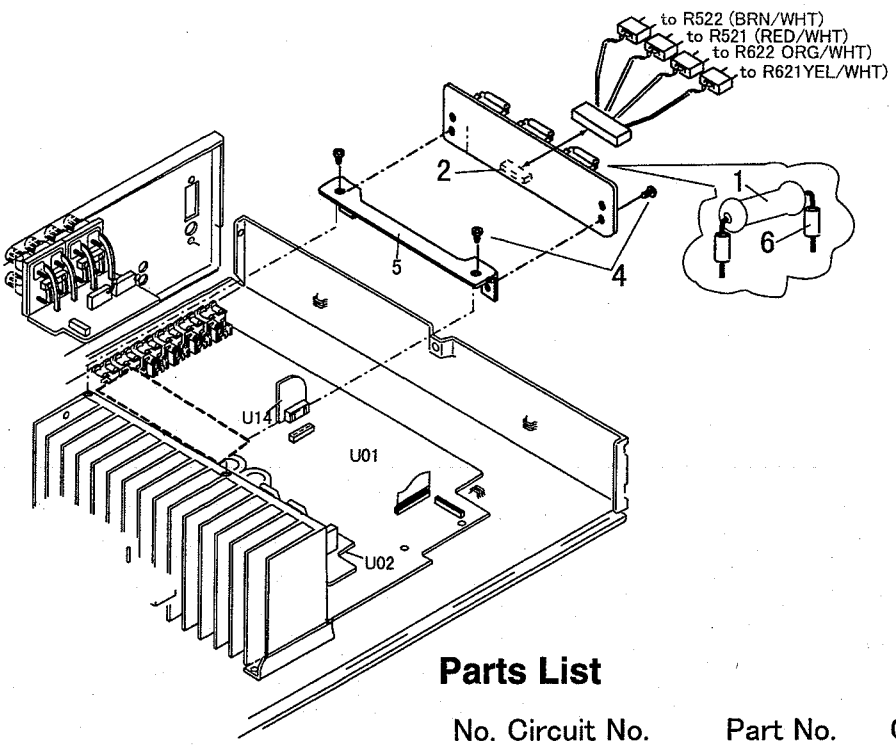
Running change Information

C740 have made a modification. Please refer following information and the serial numbers.

Serial number :	0877401001 ~ 0877401500 <AH>		500 sets
	0867400101 ~ 0867401000 <C>		900 sets
	0877401501 ~ 0877401600 <C>		100 sets
	0877401601 ~ 0877402500 <C>		900 sets





Parts List

No.	Circuit No.	Part No.	Q'ty	Description
1	R521,R522, R621,R622	4400043	4	1k ohm 5W Metal Oxide
2	P541b	25055138	1	Plug
3	P541	2009990526	1	Socket Ass'y
4		838130088	4	Screw 3TTB +8B
5		27141731	1	Retainer
6		79202	8	Tube L=15mm, 2.5Φ
7		25136511	1	PC Board